Virginia Medical Monthly

Vol. 81, No. 2
WHOLE No. 1220

RICHMOND, VA., FEBRUARY, 1954

$2.00 A YEAR
25 CENTS A COPY

GUEST EDITORIAL

The Cost of Medical Education

WITH the great increase in the cost of living, there has been a greater increase in the cost of Medical Education and of Medical Care. This increase in cost undoubtedly has resulted in better Education of students and better Care of patients, but I am afraid that Educators and Physicians have made use of new methods and new drugs to such an extent that the cost is much in excess of what it should be. Funds to meet these rising costs have increased but not in proportion to the need. Medical Schools operated by endowed institutions have had a decrease in available funds and appropriations for State and City supported schools have increased but not enough to meet the need. This deficit operation must be corrected. The schools and physicians should make strenuous efforts to reduce the cost of operations and patient care, and additional funds must be secured.

Your President last month pointed out the dangers of subsidation by the Federal Government and all of us must agree with his wise advice. We must also realize that the Federal Government is in a sense already subsidizing our schools by the enormous sums given them for research. During the last administration the Federal Government was apparently willing to subsidize the Medical Schools and some schools on account of desperate need appeared willing to accept the subsidy. Such a course will lead without doubt to Federal control of Medical Education and from that to Medical Practice.

The American Medical Education Foundation is sponsored by our A. M. A. Gifts to this Foundation can be earmarked for the school of your choice and will be sent there without deduction because the A. M. A. carries the overhead. Furthermore in most schools credit for such gifts are made in their Alumni Funds. Surely we doctors are deeply interested in keeping our Educational Institutions independent and solvent. As a group we can afford to help and we are under some obligation to help. I urge each member of the Medical Society of Virginia to contribute annually to the American Medical Educational Foundation.

CARRINGTON WILLIAMS, M.D.

XUM

AMERICAN RED CROSS BLOOD PROGRAM*

HOWARD H. MONTGOMERY, M.D.,
Director, Blood Program,
Eastern Area, American Red Cross,
Alexandria, Virginia

The Red Cross Blood Program today is a successor to the program conducted during World War II, which collected a total of thirteen million pints. The present program was inaugurated in 1948 after consultation and planning with the American Medical Association and other interested groups. It had two objectives:

1. To supply whole blood and, as far as feasible its products, to physicians for treatment of their patients in everyday life.
2. To be a functioning blood collecting system in being across the nation as a standby in the event of a national emergency.

This second purpose showed the soundness of the plan in 1950 when our country was forced into combat activities in Korea. The fact that the program was actively operating enabled the Red Cross to immediately furnish our armed forces 80,000 units of serum albumin for front-line use and to start shipments of whole blood moving toward the Far East within a week. From that time until the 30th of June last, the Red Cross centers, aided by co-operating blood banks shipped 357,000 units of whole blood for use in Korea and collected approximately 5,000,000 units for processing into plasma for the reserve stocks of the armed forces and the Federal Civil Defense.

During the past fiscal year the 45 Red Cross Regional Blood Centers in the country collected a total of 4,436,000 units of blood for civilian use. Three of these regional centers furnish blood in Virginia: The Washington Center, Washington, D. C., opened in 1948 and supplies blood in 21 counties in the northern and central part of the state, as far south as Albemarle County; The Tidewater Center, which opened in Norfolk in 1949, supplies blood in 19 counties in the eastern part of the state; and the Roanoke Center, opened here in Roanoke in 1950, supplies blood in 31 counties in the western part of the state. Together these three centers furnished you 62,525 units of blood during the fiscal year ending June 30 last. These units were distributed actually to 100 hospitals in Virginia where you gentlemen administered them. In considering these statistics, it is significant to remember that your largest city and the counties immediately adjacent do not participate in the Red Cross Blood Program for the supply of blood for civilian use.

The American National Red Cross, which conducts this program, extends into every community in the country through its chapters—more than 3,700 of them. Some have jurisdiction in only one city. Most of them have jurisdiction over an entire county. The chapter is the functioning unit of the national organization within its own jurisdiction and enjoys considerable autonomy in its operations. It is entirely dependent on the contributions of the citizens of the community for funds to carry on its work. A chapter consists of the citizens within its jurisdiction who have become members of the organization by their annual contribution. All members have the right to attend chapter meetings and to vote. Members of the chapter from all elements in the community voluntarily give their time and effort to conduct Red Cross activities for the community. Blood Program, as we know it, would not be possible without this voluntary participation by many individuals.

Each of the three centers supplying blood in the state of Virginia, and this applies to all Red Cross centers, is an activity of the chapter in the city in which it is located. The center is established as a base from which mobile units operate into the surrounding counties for the purpose of collecting blood. The blood so collected is returned to the center where grouping, typing and serology are performed. After this processing, it is delivered, upon order, to the hospitals within those counties. The responsible head of each of the centers is a physician assisted by other physicians, registered nurses, technicians and lay administrative personnel in numbers appropriate to the size of the operation. All of these staff members are employees of the chapter in which the center is located, not of the national Red Cross organization. The chapters participating in the program with each of the centers are responsible for

*An address delivered by invitation before the annual meeting of The Medical Society of Virginia at Roanoke, October 18-21, 1953.

recruiting the donors for the mobile unit visits to their community. They also provide the refreshments which are a part of the donor procedure. Volunteers perform these chapter duties.

Our centers operate under a license issued by the National Institutes of Health and observe the standards for medical and technical operations established by a national committee on medical policies and procedures. This committee is composed of leaders in various branches of medicine and the allied sciences, all of whom serve in a volunteer capacity.

The functioning of the program on the national level is coordinated by a staff headed by a physician, assisted by other physicians and members of appropriate allied specialties. Among their duties is the rendering of assistance to the centers with their problems, both professional and administrative, insuring that standards are maintained, operating a centralized purchase and supply system and representing the Red Cross in its relations with other national groups concerned with the supply of blood.

The chapters in Virginia which are participating in the civilian supply aspects of the Blood Program are participating in answer to a demand for this Red Cross service by the community of which they are a part. This desire had to be on a broader base than that of individuals directly active in the chapter. The people of the community had to be ready and willing to donate their blood and willing to contribute the necessary funds, for this is a costly program. The physicians had a major part in this community movement. They expressed their desire for this method of supplying the blood need of the community by formal action of the county medical society. The hospitals and public health officials also formally expressed themselves as favoring the program for the community. No chapter is permitted to participate in the Blood Program without the concurrence of these three groups.

Since this is a medical program to supply a precious and scarce therapeutic agent to physicians, provision is made for the physicians of each community to have a part in its operation. Each chapter appoints, as a medical advisory committee, physician nominees proposed by the county medical society. The physician director of the center looks to this local medical advisory committee for advice and assistance in meeting the blood requirements of their community and the local chapter looks to it for advice, guidance and assistance. The medical advisory committee of the chapter which maintains the center has additional responsibilities in that the physician director of the center looks to it for advice and assistance in all professional problems arising in the operation of the center.

In summary, the Red Cross Blood Program is fundamentally a joint undertaking of physicians and lay-men in geographically adjacent areas who have agreed to cooperate through their local Red Cross chapters to supply the blood required in the territory concerned. It is a program directed by physicians to supply one of the fundamental requirements for the modern practice of medicine. It requires the support of all elements in the community, but, because of its very nature, merits the particular interest of the medical profession. To fully support, however, one should know the details of that which he is supporting. I suggest that an excellent method of learning about the Blood Program would be to visit the mobile unit the next time it is in your community—start at the beginning of the donor line, pass through the several steps, and emerge at the end with the pin which signifies a blood donation.

Your local chapter needs your assistance in its efforts to recruit donors—an assistance you can render in your daily contacts with your patients and their families. It needs your suggestions and good advice regarding appropriate types of publicity—it needs and would welcome your voluntarily tendered offer of assistance. The accomplishments of the three regional centers serving Virginia have been brought about through the hours of devoted service by volunteers, both from the profession and from the laity. It is only this devoted service that has made the Blood Program possible and that will lead to even more impressive accomplishments as we all continue to work together in this co-operative undertaking.

XUM

CARCINOMA OF THE RIGHT COLON*

T. DEWEY DAVIS, M.D.,
and
SAMUEL W. BUDD, JR., M.D.,
Richmond, Virginia

At the present time the only cure for cancer is surgery provided the lesion is detected before it has metastasized and this is particularly true in carcinoma of the right colon. We feel that the symptomatology of this lesion is poorly understood since most of the literature regarding it appears in surgical textbooks and periodicals. It is our purpose to review the symptoms in the hopes that an early diagnosis may be possible.

The right colon can be defined as that part of the large intestine that lies proximal to the mid point of the transverse colon in contrast to the left which lies distal to this point. It differs from the left in that its lumen is larger and its fecal contents are usually fluid in character. Furthermore, the characteristic malignant lesions appearing in these two parts of the colon differ. Lesions in the right colon are usually characterized by a projection from the intestinal wall into the lumen. This lesion may be a hard plateau-like elevation or may be polypoid in character. Lesions of the left colon in contrast are characterized by scirrhous invasion of the intestinal wall which produces a constricting lesion or napkin ring defect.

Because of these factors—the size of the lumen, the nature of the fecal contents and the character of the growth—symptoms produced by cancer in these two parts of the colon also differ. Carcinoma of the left colon most often produces obstruction early in the course of the disease and the patient complains of distention, constipation and passage of ribbon like stools with some blood and mucus present. Carcinoma of the right colon seldom produces obstruction and the patient usually complains of vague gastro-intestinal disturbances referable to the right side of the abdomen which the physician may attribute to chronic gallbladder disease or to chronic appendicitis. Sometimes symptoms of anemia, such as extreme weakness, may first bring these patients to a physician and this anemia may be very severe early in the disease due to the chronic seepage of blood from the polypoid lesion into the intestinal tract or due perhaps to some poorly understood mechanism which prevents adequate absorption of iron and folic acid from the intestinal tract. Occasionally carcinoma of the right colon will produce no symptoms and is found accidentally when a patient is examined for another purpose.

Rankin, a surgeon, has divided the symptoms of carcinoma of the right colon into three categories: 1. Dyspeptic group which contains approximately 60% of the cases; 2. The group with anemia without visible blood loss, but with profound weakness and loss of weight and strength, 30% of cases; 3. The tumor group in which the mass is discovered accidentally, 10% of cases. In reviewing our cases we find that they fall in one of these categories and it is our intention to discuss several of each group in detail.

DYSPEPTIC GROUP

Case 1. This 60 year old housewife had been a patient of ours for several years and because of her manifold symptoms had been diagnosed as an anxiety neurosis. She reported to our office on November 12, 1952, because of epigastric distress, gas and belching. Physical examination and blood count were negative and she was treated symptomatically but did not improve, and on January 18, 1953, she had such intense pain in the right lower quadrant that she was admitted to the Johnston-Willis Hospital as a possible case of appendicitis. The next day her pain had subsided and a gastro-intestinal series was performed which showed a carcinoma of the ascending colon. The patient was operated on and since then has done well. No metastasis was noted and it is hoped that her prognosis will continue to be excellent.

Case 2. This 43 year old woman, like the preceding case, had been an old patient of ours who had been seen for a good many symptoms. She reported to our office December 10, 1951, because of severe abdominal cramps and diarrhea following the use of a laxative. We saw her frequently after that because of vague gastro-intestinal complaints characterized by generalized colicky abdominal pain

*Read before the annual meeting of The Medical Society of Virginia at Roanoke, October 18-21, 1953.

and alternating constipation and diarrhea, but it was not until she began to lose weight that a barium enema was performed on September 26, 1952, and a carcinoma of the cecum was discovered. At no time during this period was any abnormality noted on physical examination or blood count. Operation was successful and patient is doing well.

Case 3. This 56 year old colored female was first seen by us because of a palpable mass in the right lower quadrant and anemia of approximately 56%. During the previous year she had been seen by the Medical College Clinic and by other physicians because of gas, belching, an occasional episode of vomiting and weight loss. Physical examination and blood counts were normal. Two gastro-intestinal series were normal. Finally, when we saw her the diagnosis was evident and was confirmed by barium enema and operation.

These three cases illustrate that patients suffering with carcinoma of the right colon have no specific gastro-intestinal complaints. Often, because of nausea, vomiting and periumbilical pain, the clinician suspects a lesion in the upper gastro-intestinal tract and orders a gastro-intestinal series. The x-ray man concentrates on the stomach and duodenum and the colon is never thoroughly examined. The best means of demonstrating a lesion in the right colon is by barium enema for which the patient has been adequately prepared. Carcinoma of the right colon very seldom gives symptoms referable to the colon, although the second case complained of alternating constipation and diarrhea. In actual practice, diarrhea is infrequent and Bockus states, "alternating constipation and diarrhea in general is a most ballyhooed phenomenon that occurs only occasionally in cases of carcinoma of all parts of the bowel".

The first case is also interesting in that the patient was sent to the hospital as a possible acute appendicitis. In reviewing all the cases that have been seen in our office in the last fifteen years, I find two incidences in which the patient was actually operated on for appendicitis and the lesion missed at operation only to be demonstrated by barium enema one month later. Symptoms of these lesions may mimic those of gallbladder disease so that a diagnosis of chronic cholecystitis is suspected.

I feel that the first two patients are of additional interest in that both were considered to be neurotic and were not completely investigated at first. Neurotics can develop organic disease, and any change in the character of their symptoms needs further search for a cause. It is very easy to overlook a carcinoma of the right colon in a neurotic when symptoms produced by it are as vague as these.

CASES CHARACTERIZED BY ANEMIA

Case 4. A 61 year old business man reported to our office on March 13, 1952, because of generalized weakness. He had been followed carefully because several years previously a malignant polyp had been removed from his rectum and frequent barium enemas had been reported negative. Examination on this visit revealed red blood count 4,000,000, hemoglobin 65%, and blood smear was reported typical of microcytic hypochromic anemia. He was given a prescription for iron and another barium enema was ordered. In two weeks time the hemoglobin had risen to 80% while red blood count still remained at 4,000,000. The barium enema revealed a polypoid lesion in the cecum and, on May 2, 1952, an operation was performed which confirmed the diagnosis, but there were metastases noted in the liver. Since operation the patient has done well even though the prognosis is hopeless.

Case 5. This 75 year old retired male reported to our office on November 13, 1952, because of weakness and inability to walk up two flights of steps to his apartment. Physical examination was negative, but his blood count revealed presence of a macrocytic anemia with a hemoglobin of 40%. Gastric analysis showed presence of free acid in the stomach and gastro-intestinal series was reported normal. Since the x-ray man felt that he had a satisfactory view of his colon, the patient was placed on treatment and received large doses of vitamin B_{12} intramuscularly and iron and folic acid by mouth. At first he did well and red blood count rose to 3,200,000 and hemoglobin to 69%, but in February, 1953, he began to lose weight and his hemoglobin once again dropped. Another gastro-intestinal series was performed which revealed a napkin ring defect in the ascending colon which was confirmed at operation. Following surgery patient's blood count has been normal and he is in excellent health.

Carcinoma of the right colon may be first brought to the attention of the clinician because of severe anemia. Unlike cases of carcinoma of the stomach showing anemia, these patients may be cured by surgery and a high degree of anemia should not be

XUM

considered a poor prognostic finding. The mechanism of the anemia is not well understood, but certainly chronic seepage of blood from a polypoid lesion into the lumen of the intestine must play a role. The stools of these patients very seldom show evidence of frank blood and are rarely tarry in character. Nevertheless, 85% of these patients' stools will be guaiac positive. The majority of the anemias are microcytic hypochromic in character and respond well to iron, as our fourth case did. Such findings support the idea that the anemia is produced by chronic blood loss or iron deficiency. However, occasionally one finds a macrocytic anemia in these cases as we did in case number five. Patients have been reported in which the anemia simulated pernicious anemia and responded well to liver therapy at first. We can only speculate as to the etiology of this type of anemia, but somehow the lesion must interfere with the absorption of iron and folic acid from the small intestine. Case number five is the only example of macrocytic anemia in our series, and, in addition, is the only case in which the napkin ring defect was discovered in the right colon at operation. We feel that a combination of factors must enter into the cause of these anemias since it is difficult to conceive that chronic blood loss alone could be the explanation in the very severe anemias that have been reported without any evidence of visible blood loss.

TUMOR MASS DISCOVERED ACCIDENTALLY

Case 6. This 73 year old farmer was seen by his local physician in February, 1953, because of influenza. In the course of the examination the physician noted a large mass in the right upper quadrant. The patient had no symptoms at all referable to the gastro-intestinal tract. Arrangements were made for admission to the Johnston-Willis Hospital and there a barium enema revealed a large tumor at the hepatic flexure. On March 5, 1953, an operation was performed and a large polypoid growth was removed which had already metastasized to the liver. Although the patient withstood operation well, prognosis is hopeless.

This case is representative of a small group of cases in which the growth is found accidentally. Recently we have had a similar experience. We were seeing a gentleman who was x-rayed because of a peptic ulcer, but in the course of the gastro-intestinal series the x-ray man noticed a deformity at the hepatic flexure. A barium enema was performed and revealed a growth here which was confirmed at operation. I am quite sure that this growth was asymptomatic and that here is another case in which cancer was found accidentally.

SUMMARY

We have reviewed the symptoms of patients suffering from carcinoma of the right colon and have discussed several cases in detail. We find that approximately 60% of the cases have vague gastro-intestinal symptoms usually associated with lesions of the upper gastro-intestinal tract rather than with the colon. Approximately 30% of the cases come to the physician because of weakness due to an anemia which is not associated with any visible blood loss. In about 10% of the cases a tumor mass is discovered accidentally which has produced no symptoms.

501 East Franklin Street.

THE SURGICAL TREATMENT OF PATENT DUCTUS ARTERIOSUS WITH THE REPORT OF A CASE COMPLICATED BY PNEUMOCOCCI BACTERIAL ENDOCARDITIS*

HORACE A. ALBERTSON, M.D.,
Department of Surgery, Jefferson Hospital,
Roanoke, Virginia

I would like to preface any remarks I have to make this afternoon on patent ductus arteriosus with the statement that I do not pose as an authority on the subject; however, I thought it might be interesting to review this rather common cardiovascular anomaly that started the very extensive and wonderful work that has recently been done in cardiac surgery. Also, I would like to present to you a rather unusual case of patent ductus in that the anomaly was complicated by a bacterial endocarditis caused by diplococcus pneumoniae. This type of surgery got its real start in 1939 when Robert Gross first successfully operated on a patent ductus arteriosus. Recently he and his group report 611 cases.

The ductus arteriosus is an important vascular pathway in the fetus. In intrauterine life the blood is shunted from the pulmonary artery into the aorta. It is believed that shortly after birth, with the expansion of the lungs, there is a reduction in the pulmonary vascular resistance and a fall in pulmonary pressure. This results in a reversal of the direction of flow of blood through the ductus arteriosus. Gould has found it to be true that physiologically the ductus arteriosus as an effective channel is closed by the end of the second week after birth.

The degree of cardiac embarrassment depends on the age and size of the individual and the size of the shunt. While it is perfectly true that a number of patients have lived to a relatively old age with a definite patent ductus arteriosus, this is the exception rather than the rule. Gould, in quoting Bullock and associates, states that in a study of 80 cases, by the age of 14 years, 11 patients or 14% had died of their malformation. By the age of 30 years one-half the patients had died as a result of the patent ductus arteriosus; by the age of 40 years 71% of the patients had died. In a certain percentage of the childhood cases there is some impairment in physical development, but there is practically never any impairment in mental development that can be attributed to the patent ductus arteriosus. According to Gross, there are some patients in their 30's or 40's that present themselves with no frank symptoms of cardiac failure but who state that they do not have their usual amount of pep or exuberance and who find carrying on their daily tasks a chore. These individuals are certainly limited in their effectiveness.

*Read before the Southwestern Virginia Medical Society in Pulaski, on September 17, 1953.

DIAGNOSIS

An intelligent physical examination can diagnose about 95% of the cases of patent ductus arteriosus. To quote Gross, "It is important to emphasize that simple examination with stress upon an intelligent auscultation can lead to a rapid and accurate recognition of this congenital anomaly in more than 95% of the cases." Cyanosis is never found in this disease nor is there any clubbing or polycythemia. The peripheral arterial oxygen saturation is normal. The heart is usually normal in size. Patients with patent ductus arteriosus usually have a systolic blood pressure which is normal for their age, but depending upon the size of the ductus the diastolic pressure may be definitely reduced. The most important diagnostic sign in this condition is the murmur. It is heard characteristically in the second interspace just to the left of the sternum. It is a continuous murmur accentuated during systole, dying off somewhat during diastole. It has been described as a machinery type of murmur. A thrill similar to the murmur is usually present. Rarely a very tiny ductus or a very large ductus may produce a murmur that is only systolic in time. In these patients cardiac catheterization may help to clarify the diagnosis. Gross states that since more than 95% of all ducti give a continuous murmur, the diagnosis of an open ductus should not be made in the absence of such a murmur unless the diagnosis can be supported by incontrovertible evidence from catheterization studies. The electrocardiogram usually shows no abnormalities. There is in most cases no axis deviation. Flu-

XUM

oroscopy of the heart usually shows the heart to be of normal size but there is usually some prominence of the pulmonary artery. It may be exceedingly difficult to diagnose patent ductus arteriosus in the first two years of life, since in infancy the blood pressure is low in the aorta and normally high in the pulmonary artery; there is no appreciable flow through the ductus, and there is no murmur. Later on the aortic pressure rises and the pulmonary pressure decreases; there is considerable flow through the ductus and the murmur becomes typical.

INDICATIONS AND CONTRAINDICATIONS FOR OPERATION

It is safe to state that in any patient in whom the diagnosis of patent ductus arteriosus can be made, it is probably wise to advise these people to have the ductus ligated or divided. In those who are showing signs and symptoms of cardiac failure, it is mandatory that the ductus be operated on. A goodly percentage of patients with patent ductus arteriosus will develop subacute bacterial endocarditis. Infection in almost every instance is due to streptococcus viridans. Whereas bacterial endocarditis today is not the very serious thing that it was before antibiotics, it is still a disease to be feared. Patients seen with bacterial endocarditis should be given a course of antibiotic therapy to attempt to sterilize the blood stream before operation is undertaken. The contraindications to operation, according to Gross, are those children who have any cyanosis and the ausculatory sounds of a patent ductus arteriosus. With these findings he states that the ductus should never be closed surgically because the patient is either in terminal failure from a large ductus or there is a ductus compensating some complicated cardiovascular anomaly.

The optimum age for operation is between the years of 4 and 20. Beyond the age of 20 the vessels begin to become arteriosclerotic in these individuals and the danger of tearing the vessels is great and the postoperative complications are more common.

Regarding the surgical treatment, the approach is through the left chest. There are two common methods: Dr. Alfred Blalock believes the great majority of these cases can be handled by ligation, and Dr. Gross believes very firmly that all of these patients should have a division of the ductus. I think that it is technically easier to ligate the ductus, but I believe the surgeon should be prepared to go ahead and divide a ductus if it is necessary.

CASE REPORT

Patient—Miss R. B. E., Hospital No. 100776. This 20 year old, white female, was known to have had a cardiac murmur since the age of 5. Because of repeated sickness she had not gone beyond the 4th grade in school. She was seen by one of our internists in June, 1952, with a history of having had pneumonia in January, 1952, and since that time she had had right chest pain and shortness of breath. When seen in June she was running a low-grade fever and a tachycardia between 100 and 140. She was found to have a partial deafness and external strabismus on the left side. Her blood pressure was 100/60. The examiner felt at that time that there was a systolic murmur at the pulmonic area which radiated up the base of the neck and left shoulder and through the back to the scapula. He recorded a precordial thrust and a precordial thrill. There was definite dullness at the right base posteriorly and also some moist rales anteriorly over the mid portion of the right lung. WBC 6,800; RBC 3.9 million, hemoglobin 11.7 gm. Differential showed 1 eosinophil, 72 segs., and 27 lymphs. Electrocardiogram showed left axis preponderance. Chest film taken at that time is shown (Figure 1.)

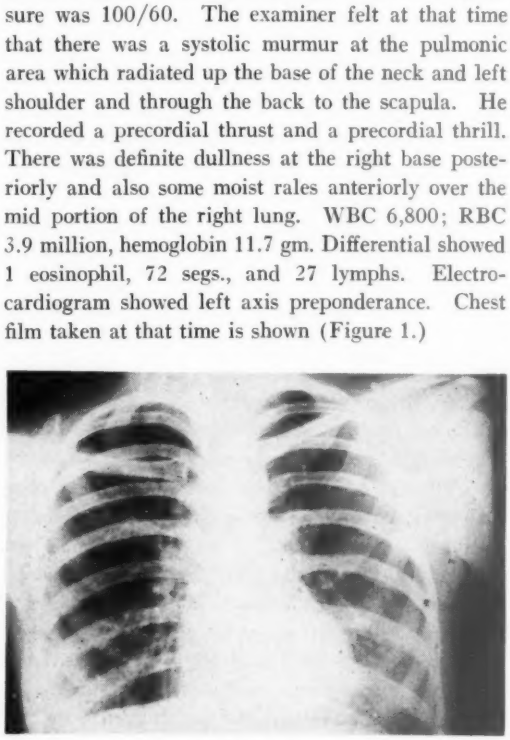


Fig. 1

Hospitalization was recommended, but due to welfare department difficulties she was not admitted to the Jefferson Hospital until September 4, 1952. She had remained moderately ill at home, complaining of chest pain which at the time of admission was originating from the left chest anteriorly. This pain on the left side began five days before admission.

She had no cough or sputum. In spite of a good appetite, she had continued to lose weight.

Physical examination revealed an acutely and chronically ill young girl with a small left eye with an external strabismus. Both pupils reacted to light. The left pupil was slightly irregular. There was some loss of hearing. (An E.E.N.T. consultant thought that both of these defects were congenital.) Examination of the lungs revealed some dullness in both bases with questionable moist rales heard over the left mid chest posteriorly. Blood pressure was 114/60; pulse 128. There was a harsh murmur to the left of the sternum in the second interspace. The murmur was transmitted to the left neck and slightly to the interscapular region. The murmur varied somewhat from time to time but usually was both systolic and diastolic and could be described as a continuous or machinery murmur. There was a precordial thrill. The heart was not enlarged and the rhythm was regular. Abdominal examination revealed tenderness over and below the left costal border and in the left flank. There was some slight suggestion on admission of cyanosis of the fingernail beds.

Laboratory work showed a hemoglobin of 9.86 gms., RBC 3.4 million, WBC 12,650, with a differential as follows: 8 stabs., 73 segs., 18 lymphs., 1 mono. Serology—negative. Blood cultures were taken. EKG was within normal limits. Admission chest plate is Figure 2.

Fig. 2

COURSE IN HOSPITAL

The morning after admission the tachycardia had slowed to 90 and the murmur had a definite continuous character suggestive of patent ductus arteriosus. The blood cultures were showing an early growth. Therefore, we made a provisional diagnosis of patent ductus arteriosus with subacute bacterial endocarditis. It was thought that the tenderness over the kidney and spleen and the migratory pneumonitis could be explained on the basis of septic infarcts. Five blood cultures, representing the period from 9/4/52 to 9/9/52, all grew diplococcus pneumoniae. This was checked by bile solubility tests, but the pneumococcus was not typed because typing serum is not available in our laboratory in this antibiotic era. The patient was placed on large doses of penicillin, and she became afebrile. Subsequent blood cultures were negative. On September 16, she had a temperature rise to 100.2 and complained of right anterior chest pain. This subsided, and on October 2, 1952, she was operated on. Numerous dense adhesions over the left upper and middle lobes made the operation difficult, but after careful dissection a patent ductus 1 cm. wide and 1.5 cm. in length was found. This was ligated with a purse string ligature at either end, and a heavy cotton ligature in between. The thrill disappeared immediately. The patient's post-operative course was stormy for the first week. She ran a very rapid pulse and a high temperature. There was consolidation in the left upper lobe and we thought at first an embolus had been thrown off at the time the ductus was ligated. Since the patient did not respond to antibiotics, she was bronchoscoped on October 10. Her temperature dropped abruptly to normal and spiked only slightly 24 hours later for the last time in her post-operative course. She was discharged much improved on 10/22/52. She occasionally has tachycardia when she is excited but her murmur has disappeared. She is taking a course in sewing at the Vocational Rehabilitation Center at Staunton and states that she feels better than she ever has in her life.

SUMMARY

1. Ninety-five per cent of the cases of patent ductus arteriosus can be diagnosed by physical examination alone. The most important sign is the murmur which is heard loudest in the second interspace to the left of the sternum and is a continuous machinery type of murmur.
2. Practically all diagnosed cases of patent ductus arteriosus should be operated on. The optimum age is from 4 to 20 years.
3. We have presented a case of patent ductus

XUM

arteriosus complicated by bacterial endocarditis; the infecting organism was diplococcus pneumoniae. The patient had numerous episodes that were interpreted as being due to septic infarcts.

REFERENCES

Gould, S. E.: Pathology of the Heart, P. 436-449, Charles C. Thomas, Illinois, 1953.

Gross, R. E.: The Surgery of Infancy and Childhood, P. 806-827, W. B. Saunders Co., Philadelphia, 1953.

Johnson, Julian, and Kirby, C. K.: Surgery of the Chest, P. 302-309, Year Book Publishers, Inc., Chicago, 1952.

Lindskog, G. E., and Liebow, A. A.: Thoracic Surgery and Related Pathology, P. 446-451, Appleton Century Crofts, New York, 1953.

Scott, H. W.: Surgical Treatment of Patent Ductus Arteriosus in Childhood, Surgical Clinics of North America, P. 1299, October, 1952.

Synthetic Opiate Proved Effective in Gastroscopy.

Meperidine hydrochloride, a synthetically produced opiate, has proved effective in facilitating examination of the interior of the stomach by means of a gastroscope, it was reported in a recent Journal of the American Medical Association.

Sedation and analgesia produced by use of the drug are superior to results obtained by other drugs, and its use eliminates the necessity of topical anesthesia and its possible hazards, it was stated by Drs. Paul J. Cimoch and C. Wilmer Wirts, Philadelphia.

In a gastroscopic examination, an instrument is passed through the mouth of the patient into the stomach. This procedure requires complete relaxation and cooperation on the part of the patient. To obtain this and eliminate any pain attached to the procedure, many combinations of drugs have been used.

The doctors described the intravenous administration of meperidine hydrochloride one to three minutes prior to gastroscopic examination of 256 patients. Relaxation and cooperation were obtained in the majority of cases. Of the examinations that were unsuccessful, most were the result of physical obstructions, the doctors said, adding:

"From our experience thus far, the administration of meperidine hydrochloride for gastroscopy has been found simple, and the resulting sedation and analgesia have been superior to the results we formerly obtained with morphine and atropine. In many patients, the effect was so striking that they appeared to be in a deep sleep but remained cooperative and responded to instruction.

"Because it is given immediately prior to examination, the drug permits the type, amount and time of administration of premedication to be controlled by the examiner. Furthermore, since it can be used as the only premedication, it eliminates the risk of topical anesthesia."

Some patients suffered such side-effects as dizziness, nausea and lightheadedness, but these reactions were "so minimal that they can be discounted," the doctors stated.

XUM

CLINICAL PROBLEMS CREATED BY ANTIBIOTIC THERAPY*

William H. Harris, Jr., M.D.,
McGuire Clinic,
Richmond, Virginia

The extensive clinical application of antimicrobial drugs has revolutionized the management of infectious disease. During this triumphal antibiotic dominated era certain undesirable effects of our therapeutic enthusiasm have begun to appear. Occasionally we are startled to learn of a death or a prolonged illness attributed to some secondary antibiotic induced complication. For this reason it has seemed appropriate to review critically a few of the apparent causative factors.

Superinfections

Profound changes take place in the bacterial flora of the human body during antibiotic therapy[1,2]. A sensitive microorganism to which treatment is being directed may be eliminated and a resistant bacterium of another species may appear. Such changes in most instances are unimportant. In certain individuals entirely new and unsuspected infections have been encountered which may seriously delay recovery.

The problem was first recognized in 1946 by Weinstein[3,4] who reported cases of pneumonia, bacteremia and pyelonephritis due to staphylococci in patients being treated with streptomycin for an original Hemophilus influenzae infection. Since then there have been numerous well documented reports[5-11] of secondary bacterial invasion caused by a variety of pyogenic bacteria which have occurred during the course of antibiotic therapy. Among the various regions of the body involved, the lungs, pleura, meninges, blood stream, and urinary tract have been most prominently mentioned. Proteus vulgaris and Pseudomonas aeruginosa appear to be the more common inciting agents, although several other species including Staphylococcus aureus, H. influenzae, Klebsiella pneumoniae, B. coli, and Clostridia have been implicated.

A comprehensive analysis of the evidence related to this problem has been undertaken by Tillett[12] whose investigation discloses that the bacterial species responsible for superinfections, with few exceptions, are not commonly considered as primary pathogens. The causative organism is usually present in enormous numbers and often in body areas not its usual habitat. The patients in many instances are debilitated, elderly, malnourished, vitamin deficient, and may be suffering from an unrelated chronic disease process at the site of the secondary complication or elsewhere.

As for antibiotic induced mycoses it now appears that their importance has been somewhat exaggerated[13]. There is no convincing evidence that the overall incidence of fungus infection has increased. It is true that monilia multiply luxuriantly during therapy with antibiotics, especially the broad spectrum group, but no direct fungal growth stimulating property has been demonstrated. Mere increase in numbers, however, does not imply pathogenicity since C. albicans rarely causes systemic disease. Monilial involvement has been confined largely to oral, rectal or vaginal mucosa. Thrush is by far the commonest such complication and has been observed most often as a result of local application in the form of troches.

A few instances[13,14,15] of fatal disseminated systemic moniliasis have been reported. In these patients therapy had been prolonged, the majority suffered from some other chronic debilitating disease, and often multiple antibiotics had been used.

The mechanisms responsible for these new infections are not well understood. The following have been suggested: (1) Introduction of new bacteria from outside sources, such as carriers, contact with other infections, or incident to the administration of the antibiotic; (2) Insensitive organisms present in small numbers multiply and become invasive after susceptible strains are inhibited; (3) Rapid development of resistance by certain microbes following exposure to the antibiotic being prescribed, which then grow unchecked producing an additional infectious illness.

Those who have studied this problem do not consider the superinfection a serious hazard of therapy but admit that we should be particularly alert to its possible development in the elderly, those suffering from chronic disease, and when treatment has been prolonged.

*Read before the annual meeting of The Medical Society of Virginia at Roanoke, October 18-21, 1953.

XUM

BACTERIAL RESISTANCE

A serious complication of antibiotic administration has been the emergence of resistant microorganisms[16]. Certain bacteria have been found naturally resistant due to the production of a substance antagonistic to antibiotic activity. Others, though originally sensitive, may be able to adapt themselves to the hostile environment of the antimicrobial agent. In still another category are those individual cells which acquire resistance to the drug being administered through the process of spontaneous mutation.

Penicillin resistance has appeared almost exclusively in the staphylococcal species. During the period 1941 to 1946 ninety per cent of pathogenic strains of staphylococcus aureus were sensitive to one unit or less of penicillin *in vitro*. Between the years 1946 and 1949 a marked reduction in sensitivity was observed. In 1948[17] sixty per cent of strains of staphylococcus aureus isolated from hospitalized patients at the Mayo Clinic were found to be penicillin resistant. Repetition of sensitivity studies annually through 1951 has indicated the constancy of this figure.

During 1951 and 1952 investigators in Boston[18], New York[19], Seattle[20], and Australia[21], studying staphylococcal strains obtained from clinical infections, have reported substantial numbers insensitive to penicillin, varying from 31 to 43 per cent in New York to 75 per cent in Boston and Seattle. By far the majority were found to be producers of penicillinase.

Fortunately the hemolytic streptococcus, treponema pallidum, gonococcus, meningococcus, and pneumococcus have retained their sensitivity to penicillin, but most enterococci and many strains of streptococcus viridans, particularly those etiologic in subacute bacterial endocarditis, have become refractory[6].

Not long after streptomycin became available for clinical use fast strains began to appear[16]. It was soon obvious that contact of most microorganisms with this antibiotic eventually led to their insensitivity to its antibacterial action. This has been well illustrated in the treatment of tuberculosis, where resistant tubercle bacilli present a major obstacle to successful management.

Streptomycin fastness may develop with great rapidity. Originally sensitive bacteria have been known to become resistant after 48 to 96 hours of exposure. Even more amazing is the observation that some bacteria already rendered resistant may require streptomycin for continued growth[22,23].

Both mutant and naturally resistant strains retain this characteristic indefinitely and thus comprise a large proportion of our present bacterial population. These hardy organisms probably account for the ineffectiveness of streptomycin in bacterial infections today which were formerly responsive to its administration.

Resistance to aureomycin, terramycin, and chloramphenicol has not yet become a major problem. It is alarming to note that Boston[18], Rochester[17], and Seattle[20] investigators report increasing numbers of staphylococci which have lost their sensitivity to these agents. It has also been possible to induce resistance to both gram positive and gram negative organisms experimentally[6]. Insensitivity to chloramphenicol has developed during the treatment of urinary tract infections caused by gram negative bacilli[24]. Naturally resistant bacteria have not been isolated nor has drug dependency been demonstrated as with streptomycin[16]. One important observation has been the tendency for these antibiotics to suppress the penicillinase mechanism, thus rendering resistant bacteria responsive to penicillin. This interesting phenomenon may be of considerable practical value should treatment with one or another of the broad spectrum drugs result in failure[25].

ANTIBIOTIC ANTAGONISM

Jawetz[26] and his colleagues have demonstrated conclusively that aureomycin, terramycin, and chloramphenicol can interfere with the action of penicillin, streptomycin, and bacitracin on certain microorganisms *in vitro* and *in vivo*. Rather exacting conditions have been found necessary to produce antagonism in the test tube and in the experimental animal. The interfering agent has to act before or simultaneously with the effective one. Results also indicate that antagonism is most pronounced when minimal amounts of the interfering antibiotics are used, and is prevented by an excessive concentration of either. For these reasons it has been considered unlikely that this problem would be encountered frequently in human infections. Tillett[12] has pointed out that the stringent conditions required for antagonism to take place experimentally could rarely be fulfilled in man since the absorption rate of each antibiotic differs and relative concentrations in the circulation and at the site of infection are in all likelihood constantly changing.

As predicted, the problem of antagonism has not been observed frequently in clinical practice. In a series of patients suffering from pneumococcal meningitis, reported by Lepper and Dowling[27], the mortality was higher in those treated with a combination of penicillin and aureomycin than in a comparable group receiving penicillin alone. These authors conclude that penicillin and aureomycin are mutually antagonistic when administered concomitantly in this disease. No other proven instances of antagonism have thus far been reported in the literature and recoveries following treatment with combinations of penicillin and broad spectrum agents have been recorded[10].

Opinion at this time tends to regard the development of antagonism as a rare complication of combined therapy, and therefore of no great significance in the management of human disease[12].

The apparent rarity of antibiotic antagonism is no excuse for the indiscriminate use of combination therapy. In the great majority of bacterial infections a single antibiotic will suffice. No less an authority than Dr. Perrin Long, addressing the Medical Society of New York State on May 8, 1953, urged that the systemic use of multiple antibiotics be discontinued with the exception of penicillin and streptomycin in certain cases of resistant bacterial endocarditis.

COLITIS COMPLICATING ANTIBIOTIC THERAPY

In addition to the rather commonly observed anorectal irritation, diarrhea is a frequent complication of broad spectrum therapy. It may be the result of a mild simple colitis or of an extensive ulcerative process associated with the discharge of pus and blood. Between these two extremes bowel dysfunction varies in degree of severity. In some patients symptoms are prolonged and debility marked, even necessitating hospitalization. Chewning[28] has described in detail the proctoscopic appearance of the bowel in a large number of patients who had received aureomycin or terramycin by mouth. The changes consisted of erythema and edema in some cases, a mottled, friable, easily bleeding mucosa in others, and multiple ulcerations covered with pus, mucus, and blood in those with most severe involvement. No specific pathogens could be isolated from the excreta in any of these patients. Although complete recovery took place in all instances, no treatment proved consistently beneficial.

A few fatal cases of severe pseudomembranous enterocolitis occurring in patients under treatment with aureomycin and chloramphenicol have been reported by Reiner, Schlesinger, and Miller[29]. A causative agent could not be recovered from the intestinal contents of these cases and the authors were of the opinion that the antibiotics were responsible. A recent study[30] of the available evidence has revealed that pseudomembranous enterocolitis is a distinct clinical entity which usually follows intestinal surgery, but proof that the condition is precipitated or aggravated when present by antibiotic therapy has not been established. The syndrome had been known to occur long before the antimicrobial era.

A severe, sometimes fatal, illness[31,32,33], caused by resistant staphylococci, has been observed in this country and abroad during the past year. Terramycin had been used in the majority of these patients, although a few had received aureomycin and a small number penicillin and streptomycin. For the most part these drugs had been prescribed as prophylactic agents pre-operatively and during surgical procedures. The condition has been classified as an enterotoxemia because of the "cholera-like" syndrome observed. Despite conflicting statements in the literature, apparently no true enterotoxin has been demonstrated. Symptoms have consisted of copious watery diarrhea and fever. Shock, oligura, and uremia have been terminal manifestations. The distinguishing feature is the predominance of staphylococci on examination of the liquid stools. Blood cultures have been sterile and death is considered to result from toxemia rather than septicemia.

Unexplained fever associated with diarrhea in any patient under antibiotic therapy should suggest the onset of staphylococcal enteritis. Immediate discontinuance of the agent being used and the institution of intensive supportive therapy are measures necessary to insure a successful outcome. In some instances elimination of staphylococci from the intestinal tract has been achieved by the administration of erythromycin, and to date it has been the most effective chemo-therapeutic weapon in combating this complication.

PENICILLIN ANAPHYLAXIS

Reports of immediate anaphylactic shock following the administration of penicillin have appeared with increasing frequency. In the several papers[34-39] reviewed, we have found reference to 61 such reac-

XUM

tions, 23 of which proved fatal. The number of individuals who become sensitized to penicillin increases daily. Is there any reason why we should not expect a greater incidence of anaphylaxis in the future?

The intramuscular administration of penicillin in its various forms has been most often responsible for these reactions. However, sinus instillation, aerosolization, dust inhalation, intradermal injection and oral ingestion have been implicated in severe anaphylactic states.

The reaction itself comes on suddenly, in seconds to minutes after administration of the antibiotic. Shock accompanied by cyanosis and labored, slow breathing is the most common sign, while convulsions occur in many and unconsciousness in most instances. Fatalities have been recorded minutes to several hours after onset of symptoms.

Most of these reactions have occurred in persons to whom penicillin had been administered previously without incident. A few patients have reacted following the initial dose. Among the 61 cases already cited, many had an allergic background, asthma being especially common. It is obvious, therefore, that one should be extremely cautious about prescribing penicillin for such individuals. The simple procedure of skin testing may be very informative as to the patient's allergenicity and is recommended when circumstances warrant.

Inquiry should always be made as to earlier reactions. When penicillin has produced anaphylactic shock on a previous occasion, dire consequences may result from its subsequent administration. Inadvertent intravenous injection should be strenuously avoided by routine pullback on the syringe plunger before each dose. Only by attention to these important aspects of therapy can we hope to prevent serious immediate reactions.

CONCLUSION

Certain problems related to antibiotic usage have been discussed. It is impossible to predict how far reaching the impact of today's global antibiotic therapy will be on our future microbial population. An ominous note is sounded by Garrod, a British investigator, in the following statement: "Bacteria are displaying some versatility in their response to chemo-therapeutic drugs. They are not taking the present widespread attack on them lying down; some are defending themselves very effectively, and some are even turning our weapons to their own advantage. So far the supply of new antibiotics has more than matched the capacity of bacteria to resist them, but if this supply should cease—and presumably the number yet to be discovered is limited—the time may come when a few of the more enterprising species will flourish more or less unhindered." No one should be denied the benefit of these valuable agents when there is a definite indication for their use, but, by all means, let us exercise discrimination in case selection.

BIBLIOGRAPHY

1. Keefer, C. S.: Am. J. Med., **XI**: 665, 1951.
2. Smith, D. T.: Ann. Int. Med., **37**: 1135, 1952.
3. Weinstein, L.: New England J. Med., **235**: 101, 1946.
4. Weinstein, L.: Am. J. Med. Sc., **214**: 56, 1947.
5. Appelbaum, E., and Leff, W. A.: J.A.M.A., **138**: 119, 1948.
6. Editorial: Ann. Int. Med., **36**: 196, 1952.
7. Finland, M., and Weinstein, L.: New England J. Med., **248**: 220, 1953.
8. Barach, A. L., Bickerman, H. A., and Beck, G. J.: Arch. Int. Med., **90**: 808, 1952.
9. Yow, E. M.: J.A.M.A., **149**: 1184, 1952.
10. Ahern, J. J., and Kirby, W. M. M.: Arch. Int. Med., **91**: 197, 1953.
11. Jackson, G. G., *et al.*: Ann. Int. Med., **35**: 1175, 1951.
12. Tillett, W. S.: Ann. Rev. Med., **4**: 1, 1953.
13. Kligman, A. M.: J.A.M.A., **149**: 979, 1952.
14. Brown, C., Propp, S., Guest, C. M., Beebe, R. T., and Early, L.: J.A.M.A., **152**: 206, 1953.
15. Zimmerman, L. E.: Arch. Path., **50**: 591, 1950.
16. Long, P. H.: Bull. New York Acad. Med., **28**: 809, 1952.
17. Needham, G. M., and Nichols, D. R.: J. Lab. and Clin. Med., **41**: 150, 1953.
18. Finland, M., and Haight, T. H.: Arch. Int. Med., **91**: 143, 1953.
19. Meleney, F. L., and Johnson, B. H.: Surg., Gynec., & Obst., **97**: 267, 1953.
20. Haviland, J. W.: Ann. Int. Med., **39**: 307, 1953.
21. Rountree, P. M., and Thomson, E. F.: Lancet, **2**: 262, 1952.
22. Miller, C. P., and Bohnhoff, M.: Science, **105**: 620, 1947.
23. Miller, C. P., and Bohnhoff, M.: J. Bact., **54**: 467, 1947.
24. Garrod, L. P.: Brit. M.J., **1**: 205, 1951.
25. Monnier, J. J., and Schoenbach, E. B.: Antibiotics and Chemother, **1**: 472, 1951.
26. Jawetz, E.: Arch. Int. Med., **90**: 301, 1952.
27. Lepper, M. H., and Dowling, H. F.: Arch. Int. Med., **88**: 489, 1951.
28. Chewning, C. C., Jr.: Virginia Med. Month., **79**: 136, 1952.

29. Reiner, L., Schlesinger, M. J., and Miller, G. M.: Arch. Path., **54**: 39, 1952.
30. Editorial: New England J. Med., **249**: 37, 1953.
31. Dearing, W. H., and Heilman, F. R.: Proc. Staff Meet., Mayo Clin., **28**: 121, 1953.
32. Sloss, P. T.: Minnesota Med., **36**: 63, 1953.
33. Fairlie, C. W., and Kendall, R. E.: J.A.M.A., **153**: 90, 1953.
34. Stroud, G. M.: Arch. Dermat. Syph., **66**: 491, 1952.
35. Higgins, G. A., and Rothchild, T. P. E.: New England J. Med., **247**: 644, 1952.
36. Siegal, S., Steinhardt, R. W., and Gerber, R.: J. Allergy, **24**: 1, 1953.
37. Mayer, P. S., Mosko, M. M., Schutz, P. J., Osterman, F. A., Steen, L. H., and Baker, L. A.: J.A.M.A., **151**: 351, 1953.
38. Council on Pharmacy and Chemistry: J.A.M.A., **151**: 1105, 1953.
39. Feinberg, S. M., Feinberg, A. R., and Moran, C. F.: J.A.M.A., **152**: 114, 1953.

1000 West Grace Street.

Discovery of New Factor in Blood.

An unusual reaction to a blood transfusion that led to the discovery of a new, common factor in the blood, designated as factor U, was described in the December 19 Journal of the American Medical Association. Lack of the factor, noted in Negroes, causes the blood to clump, complicating blood transfusions.

The reaction occurred in a 35-year-old Negro woman who was admitted to a New York hospital suffering from a bleeding peptic ulcer and anemia. A blood transfusion was attempted upon admittance, but discontinued when the patient suffered chills and fever. A week later a second transfusion was attempted; despite all precautionary measures, the patients went into shock and died.

Tests of the patient's blood and that of the donors indicated that the patient's serum contained an abnormal antibody that caused the blood cells of the donors to clump together upon transfusion, the article stated. Further tests with the patient's serum on a small series of other blood specimens showed them all to be incompatible with the patient's. This indicated the factor in question had a high frequency in the population and apparently was not related to any known factor, it was added. The patient lacked this factor, which was named factor U.

Additional tests in order to find persons lacking in the factor were made on 690 Caucasoids and 425 Negroids. All of the Caucasoids were found to have factor U in their blood, while four of the Negroids tested were found to be lacking in it.

The report was made by Dr. A. S. Wiener, Dr. L. J. Unger and E. B. Gordon, Brooklyn.

XUM

LEUCONYCHIA TOTALIS*

CARL S. LINGAMFELTER, M.D.,†
Richmond, Virginia
and
CHARLES W. WHITMORE, M.D.,
Charlottesville, Virginia

Leuconychia involving the nail plate in the form of white dots, streaks or bands of various sizes is a common condition. It usually begins near the lunula and gradually progresses toward the free border with the growth of the nail. The condition is found chiefly in young persons and principally on the nails of the fingers. At times only one nail is involved, but in other instances all may be the seat of numerous white spots or white bars.

In contrast to the frequency of the above type of leuconychia, there is a curious form of the disorder known as leuconychia totalis which is distinctly uncommon. In this variety, as the name implies, the entire nail plate is white. The nails of leuconychia totalis are of cosmetic importance only.

A case of leuconychia totalis recently seen in the Dermatology Department of the University of Virginia Hospital is illustrated in this report. The patient was a 40 year old white male with involvement of all the nails of both hands and feet. He stated that the condition had been present since birth and was completely asymptomatic. Examination showed that all nails were porcelain white in color and that the lunulas could not be made out (Figs. 1 and 2). In addition, there were typical lesions of psoriasis on both hands and wrists as well as on the elbows, knees and buttocks. The psoriasis had first appeared at the age of 27 years. The physical examination was otherwise normal. There was no family history of leuconychia.

Fig. 1. Nails of the patient reported here, showing porcelain white appearance and absence of the lunulas.

Fig. 2. Nails of the patient with leukonychia contrasted with normal nails. (Ring on finger of individual with normal nails).

The pathogenesis of leuconychia in general is not understood although numerous theories[1,2,3] have been advanced to explain the condition. Only a few instances of leuconychia totalis similar to the case described here have been recorded in the literature. Four of the previously reported cases have been on an hereditary basis. Our case may be classified as congenital, since we were unable to demonstrate a familial distribution.

*From the Department of Dermatology and Syphilology, University of Virginia Medical School, Charlottesville, Virginia.
†1805 Monument Avenue, Richmond, Virginia.

REFERENCES

1. Woolf, M. S.: Leukonychia Striata. Arch. Dermat. & Syph., **12**:520, (Oct.) 1925.
2. Singer, P. L.: Leukonychia—Its Normal Occurrence and Causation. Arch. Dermat. & Syph., **24**:113 (July) 1931.
3. Kruse, W. T., Cawley, E. P. and Cotterman, C. W.: Hereditary Leuconychia Totalis, J. Invest. Dermat., **17**:135 (Sept.) 1951.

XUM

A GENERAL HOSPITAL ADMISSION X-RAY PROGRAM*

ALFRED L. KRUGER, M.D.,
PHILIP B. PARSONS, M.D.,
and
JOE LEE FRANK, JR., M.D.,
Norfolk, Virginia

Although it has been realized for many years by physicians that pulmonary disease of varied etiology could occur asymptomatically, the importance of chest x-rays as a part of routine physical examinations was not fully appreciated by physicians until World War II. The primary object of pre-induction chest x-rays in that war was to eliminate all cases of tuberculosis from entering military service. Approximately one-half of all cases of significant tuberculosis have no symptoms or symptoms so slight as to escape notice. It is well known that pulmonary disease may exist with the physical examination being entirely normal even at the hands of an expert. It is, therefore, not surprising that over one per cent of pre-induction chest x-rays showed active tuberculosis.

Mass surveys for the detection of tuberculosis were conducted on a small scale in different sections of the country prior to World War II. With the knowledge gained by the results of the pre-induction x-ray program, such surveys were begun on a larger scale after the conclusion of the war. Crimm[1] reviewed the results of fifteen such surveys and found that active reinfection tuberculosis was found in the range of 0.3 cases to 3.01 cases per 1000 films.

More recently, attention has been directed to the detection of other forms of pathology in the mass x-ray surveys. Cardio-vascular abnormalities, bronchiectasis, cystic disease of the lung, lymphomas and bronchogenic carcinomas have been found in asymptomatic individuals. Realizing that carcinoma when found in the symptomatic phase is usually an inoperable carcinoma, the importance of finding it in the asymptomatic phase through routine chest x-ray examination cannot be over-emphasized.

The difficulty with a mass x-ray survey is that it is extremely difficult to get the older people to participate. One should recall that it is among the older people, especially males, that tuberculosis and cancer of the lungs are most frequently found. Schneider and Robins[2] found in their survey that the prevalence rate of tuberculosis was appreciably higher for veterans fifty years of age or over.

Early interest in tuberculosis case-finding in general hospitals was aroused as a result of programs in hospitals where tuberculin tests and chest x-rays were made on student nurses. It was found that a large percentage of those students who entered their careers as non-reactors had become positive tuberculin reactors shortly after beginning to work on patients, even in hospitals that did not knowingly admit tuberculous patients. The hesitancy in adopting such a program was chiefly due to the fact that the use of large films was costly not only in money, but in time and in the lack of adequate facilities. Fluoroscopy was tried in some hospitals and in the hands of expert clinicians it was recognized as a valuable diagnostic aid, but it failed to supply an objective record of the findings. The development of the small photofluorograph in the late 1930's made possible the examination of a large number of persons quickly, easily and at relatively low cost.

Plunkett,[3] in 1940, conducted chest x-ray examinations of 4,853 patients admitted to general hospitals in up-state New York and found 2.6 per cent with evidence of reinfection tuberculosis, of whom 1.1 per cent had active lesions. Childress[4] reported a survey conducted at Grasslands Hospital in New York City. In that study, 7,187 admissions were x-rayed and 2.8 per cent showed evidence of tuberculosis of whom 0.6 per cent had active disease. Schneider and Robins[2] conducted an extensive survey of admissions to Veterans Hospitals and reported on 1,091,708 patients x-rayed. They found that the yield of unsuspected active tuberculosis was at least four times that derived from community-wide x-ray surveys. It is estimated that approximately 16 million persons are admitted to general hospitals each year. Oatway,[5] in 1948, conducted a survey to find out what proportion of general hospitals in the United States had programs of routine chest x-ray for patients on admission. He found that, at that time, only 247 of the 4,539 general hospitals in the

*From the Departments of Medicine and Radiology of Norfolk General Hospital.

Presented before the annual meeting of The Medical Society of Virginia, at Roanoke, October 18-21, 1953.

XUM

country had programs in action. It was, therefore much to the point that on June 9, 1952, at a joint meeting of committees from the American College of Radiology and the American College of Physicians, an official endorsement of routine chest x-rays for all hospital admissions was made.

It must be emphasized that the small film radiographic examination is but a screening procedure serving to separate persons with definite or suspicious abnormal shadows from those with no chest abnormality. An abnormal finding in the initial film cannot by itself constitute a clinical diagnosis. It merely serves to focus attention on the need for further study and imposes an obligation on the physician to carry out a full diagnostic survey promptly in order to determine the clinical significance of the suspected abnormality. Birkelo[6] made an analysis of the different x-ray modalities and concluded that, strictly from the point of view of *detecting* pathology, none of the different techniques, not even the 14″ x 17″ film, is superior to any of the others.

In November, 1947, a 70 mm. photofluorograph was installed in Norfolk General Hospital. The purpose in installing this unit was four-fold:

1. To x-ray every admission to the hospital when possible. (In readmissions the study is not repeated at less than six months.)
2. To x-ray every new clinic patient. (O.P.D.)
3. To x-ray all hospital personnel every six months.
4. To encourage practicing physicians in the city to send their patients for a routine chest x-ray whenever they desire.

The unit was installed in a room close to the admission office so that all ambulatory admissions could have the x-ray taken on their way to their rooms. Those that were admitted after 6:00 P.M., were sent for the following day by the technician who received a daily list of admissions to the hospital. All of the x-rays are read daily around 4 o'clock P.M., and reports of the findings are incorporated with the patient's hospital record. Whenever any abnormality is found, a request is made on the report to the attending physician to return the patient to the department for a 14″ x 17″ film or other x-ray studies, as indicated. Of 43,967 films studied, approximately 74.5 per cent were negative, 14.5 per cent showed significant cardiovascular abnormalities, 2.86 per cent revealed suspected reinfection tuberculosis, and 5.9 per cent showed other pulmonary lesions (Table I).

TABLE I

INCIDENCE OF PATHOLOGICAL READINGS

	Absolute Numbers	Per cent
1. Essentially Negative	32,740	74.48*
2. Cardiac Enlargement	1,651	3.78
3. Wide Aorta	4,716	10.70
4. Suspect Reinfection Tuberculosis	1,257	2.86
5. Other Pulmonary Lesions	2,632	5.97
6. Other Heart Lesions	281	0.64
7. Other Lesions, Miscellaneous	210	0.48
8. Bony Lesions	480	1.09
	43,967	100%
Total Photofluorographic Readings, June 1, 1949 - September 26, 1953	43,967	

*This figure is approximate since several patients had more than one pathological finding.

It must be emphasized that not every admission to a general hospital will get a film on admission. Those admitted in a critical state, those admitted as a result of severe injuries, those admitted in active labor will not be able to have the admission x-ray made. Most of these patients, however, will be able to have the x-ray taken prior to discharge. Infants and young children are not suitable candidates for photofluorography. Besides the chances of their showing any tuberculous lesion is very remote. Of 4,059 Philadelphia primary school children surveyed in 1946, only 0.3 per cent were possibly tuberculous, and none were found to have active disease.

We have made a conscientious effort to examine as many of the admissions as possible but, because of the above stated exceptions, the actual number of admission x-rays taken has fallen short of 100% by a considerable margin. Ochsner[7] found that 39 per cent of admissions were not x-rayed and the group included the traumatic, the children tonsillectomies and obstetrical cases. This did not include the medical and surgical emergency admissions which would add a significant additional percentage of patients not x-rayed on admission.

No attempt has been made in this presentation to give the follow-up studies done on these patients to determine the final diagnosis made. We are completely convinced of the fruitfulness of this examination in detecting unsuspected chest pathology. This procedure has met with widespread approval by the physicians of Norfolk who have become

XUM

impressed with the importance of this examination (Table 2). That the program has been successful can be shown by the recent installation of photofluorographic equipment for a similar purpose in the

TABLE II

DISTRIBUTION OF SOURCES REFERRING FOR PHOTOFLUOROGRAPHIC STUDIES

	Absolute Number	Percentage
In Patients (Private & Clinic)	22,423	51
Out Patients (Private)	5,716	13
Out Patients (Clinic)	7,474	17
Out Patients (Courtesy —98% Personnel)	8,354	19
	43,967	100%

other two general hospitals in Norfolk. Where such equipment is installed in a general hospital, existing space and personnel can be used. Not only is the program of importance in discovering the "hidden" case of tuberculosis but it also provides protection for other patients and hospital personnel from unsuspected sources of infection. One may hear criticism as to the value of any survey for the detection of tuberculosis, in the light of long waiting-lists for beds at the tuberculosis sanatoria. While it is shocking and there is complacency about infectious tuberculosis and while the pleas for more sanatoria frequently fall on deaf ears, there is great virtue in knowing the extent of the problem. The average citizen who finds that he has a positive sputum is willing to protect his contacts and to limit his own activities for the betterment of his health.

CONCLUSIONS

1. Chest x-rays of all possible hospital admissions should be a part of the routine admission diagnostic study.
2. Photofluorography, irrespective of the method, constitutes an excellent screening procedure.
3. By this method, potentially serious pulmonary diseases may be detected in their asymptomatic phase; then therapy, properly and promptly instituted, may be curative.
4. The detection and prompt isolation of cases of tuberculosis on admission to a hospital will do much to prevent the spread of the disease to others.

BIBLIOGRAPHY

1. Crimm, P. D.: Evaluation of a Five Year Minifilm Program. Am. J. of Roent. Rad. Ther. & Nuc. Med. **68**: 240-246, 1952.
2. Schneider, L. V., and Robins, M.: Tuberculosis Case Finding Survey Program of the Veterans Administration. Public Health Reports. **67**: 189-195, February, 1952.
3. Plunkett, R. E., and Mikol, E. X.: Unrecognized Tuberculosis in General Hospitals, Am. Rev. Tbc. **41**: 381-387. 1940.
4. Childress, W. G., Debbil, A. G., and Harmon, E. L.: T.B. Case Finding by General Hospitals, J.A.M.A. **122**: 1063-1065, 1943.
5. Oatway, W. H., Jr.: The Current Status of Routine X-raying in General Hospitals of the U. S., Arizona Med. **6**: 23, 1949.
6. Birkelo, C. C., *et als.*: A Comparison of the Effectiveness of Various Roentgenographic and Photofluorographic Methods, J.A.M.A. **133**: 359-365, 1947.
7. Ochsner, H. C.: The Chest Survey in a Large General Hospital, Dis. Chest. **19**: 444-453, April, 1951.

XUM

GUILLAIN-BARRE SYNDROME: REPORT OF A CASE IN PREGNANCY AND A REVIEW OF THE LITERATURE*

H. S. ZFASS, M.D.,
I. S. ZFASS, M.D.,
C. E. TROLAND, M.D.,
and
T. R. MACK, M.D.,
Richmond, Virginia

Guillain, Barre and Strohl[1], in 1916, described a syndrome resulting from an inflammatory process in the brain, spinal cord, posterior roots and peripheral nerves. Although Osler[2], in 1892, described the first case under the name of "acute febrile polyneuritis", the clinical picture remained vague until this trio emphasized the characteristic albumino-cytologic dissociation in the spinal fluid, the preponderance of motor weakness over sensory disturbances, and the favorable prognosis despite the initial serious appearance. However, in 1918, Bradford, Bashford and Wilson[3], in England, and the following year Cassamajor[4], in America, found a mortality rate of approximately 25%. Since 1936 other reliable sources[5,6,7] have reported mortality rates ranging from 20 to 40%. The discrepancy of these figures with those of Guillain and Barre probably lies in the coincidental occurrence of acute phases of the disease in the higher mortality group as compared with the probable benign nature in the Guillain-Barre group. The localization of the lesion may be an index to the prognosis, the outlook being much more serious when the bulbar or upper cord areas are involved than in the localization of the disease in the lower cord or peripheral nerves.

This syndrome has been called by various names according to the topography and degree of nervous system involved, e.g., infectious polyneuritis, infectious neuronitis, radiculitis, myelitis of undetermined origin, acute ascending myelitis, myeloradiculitis, encephalomyeloradiculitis and acute febrile neuritis. It has been reported precipated by measles, mumps, scarlet fevre, syphilis, varicella, tuberculosis, infectious hapatitis, infectious mononucleosis, botulism, bronchogenic carcinoma, serum sickness, upper respiratory infections, sulfonamides, and trauma.

The etiology of the Guillain-Barre syndrome has not been settled but a filtrable virus and probably a rather strict neurotrope[8] was considered the most likely agent. The pathologic findings, although not specific, were also found to be in keeping with the changes noted in the nervous system following filtrable virus infections. However, Nielsen[9], in a recent brilliant monograph, concluded that the Guillain-Barre syndrome was not an entity etiologically, clinically, pathologically nor therapeutically. In ten proven cases treated with British Anti-Lewisite, nine showed definite improvement. Although the author hastened to add that his work was still in the experimental stage and that there were many unknown facts in this syndrome, the symptom complex was considered to be basically a manifestation of a toxic interference with enzyme metabolism of ganglion cells and that this could be aided with BAL. The problem of selective albumino-cytologic dissociation has never been adequately explained. Hassin[10,11] demonstrated the absorption of spinal fluid through the perineural spaces of the cranial nerves and spinal nerve roots and not, as formerly believed, through the villi or pacchionian bodies. Reitman and Rothschild[12] suggest that when these spaces are obliterated by malignant metastasis, inflammatory reaction or allergic edema, there is a resultant obstruction to the perineural circulation of the cerebrospinal fluid as the nerve roots emerge from the cord, thus permitting absorption of fluid and electrolytes but preventing the absorption of the larger protein molecules. A common anatomic basis, regardless of the etiology, is thus suggested.

The differential diagnosis must include poliomyelitis and diphtheria. Approximately ten per cent of diphtheritic cases develop polyneuritic or other neurological manifestations. Diphtheritic polyneuritis may simulate a Guillain-Barre syndrome to such an extent that a definite diagnosis can be difficult. History of contact and nose and throat cultures are helpful. Delp *et al.*[13] reported five cases of post-diphtheritic polyneuritis where the characteristic albumino-cytologic dissociation was present in each and the diagnosis established by isolation of C. diphtheriae from a cutaneous ulcer. The paralysis

*Presented at the Scientific Meeting of the McGuire Clinic, Richmond, October 7, 1952.

of poliomyelitis is usually unilateral as compared to the bilaterally symmetrical paralysis of the Guillain-Barre syndrome. There are spasms but no sensory changes in the former, and cranial nerve involvement is rare. There is also a seasonal difference, the Guillain-Barre syndrome usually occurring in the colder months of the year. Perhaps the differential diagnosis should also include toxic porphyria, a uniformly fatal disease. Typical albumino-cytologic dissociations have been found in the spinal fluid of cases of porphyria[9]. This condition and the Guillain-Barre syndrome have, on occasions, coexisted. Occasionally coproporphyrin is intermittently excreted in the urine as porphobilinogen, a colorless compound which upon exposure to sunlight or filtered ultraviolet rays results in shades varying from a pink fluorescence to dark brown or Port wine. Since it is obvious that this test will not always be positive for the presence of porphyrin in the urine and yet porphyria still be existent, it is conceivable that a patient can be treated for a non-porphyric Guillain-Barre syndrome and die from an unsuspected porphyric polyneuritis. Toxic porphyria can be precipitated by an attack of poliomyelitis, by ingestion of morphine, barbiturates, some coal tar products, and by anesthetics. The final diagnosis of porphyrinuria is made on the identification of the characteristic spectral absorption bands of alkaline porphyrin at 6220, 5760, 5390 and 5040 angstroms.

MacNeal and Bland[8] recently reviewed the literature in regard to the Guillain-Barre syndrome. It is within the scope of this paper to review only the incidences in which this syndrome has occurred in pregnancy. McGoogan[14] reported fifteen cases of severe polyneuritis in pregnancy due to vitamin B deficiency with slow ultimate recovery with adequate dosages of thiamin chloride daily. Spinal fluid determinations were not made in any of these cases. Berkwitz and Lufkin[15] reviewed five hundred cases and reported four cases of toxic neuronitis of pregnancy; there was one survival and the spinal fluid determinations in each were reported negative. At autopsy the characteristic lesions were degenerative changes of the peripheral nerves and anterior horn cells and petechial hemorrhages in the brain and cord. Posner and Hecht[16] reported a case of gestational neuronitis and attributed the onset to vitamin B deficiency; a spinal fluid examination was not made. Similarly, Agnew[17] reported a case of gestational neuronitis, without spinal fluid determination, and stressed the importance of large dosages of vitamin B in its treatment. Finally, Rowan and Mayfield[18] reported a case of severe fulminating type of peripheral radiculoneuritis complicating pregnancy that was relieved following a Caesarean section. The authors differentiated this from a Guillain-Barre syndrome because of the lack of sensory findings and the gradual onset of the case in question. A spinal fluid determination was not done.

The case to be presented is interesting in that it represents a rare instance of the Guillain-Barre syndrome complicating pregnancy.

CASE REPORT

A 17-year old white married female was doing well with a three months' pregnancy until four days prior to her first admission to the hospital when she complained of onset of weakness in both lower extremities and suddenly collapsed while walking. The following day she became troubled with nausea and vomiting which persisted until the day of admission. On the day of entry she noted some stiffness of the right side of the face. The general physical examination at this time was not remarkable with the exception of the neurological findings; these revealed well outlined optic discs, an almost complete right peripheral facial paralysis with other cranial nerves intact. There was marked weakness of both legs with absent reflexes in all extremities. Temperature 99.4°, pulse 120, respirations 32. A Guillain-Barre was suspected and a lumbar puncture revealed a cell count of three, with protein 180, chlorides 759, and sugar 63 mgs. per 100 cc. Other routine laboratory studies were non-contributory. With the exception of one episode of a slight choking sensation and a mild headache, her hospital stay was uneventful and she was discharged in an apparent improved condition eleven days following admission.

The patient was admitted to the hospital twenty-four hours later because of an acute respiratory episode characterized by dyspnea, cyanosis and inability to swallow without strangulation. Patient appeared apprehensive, acutely ill, and unable to talk above a whisper. Temperature was 101.8°, pulse 140, and respirations 40. The pupils were equal and regular and reacted sluggishly to light and accommodation. The sclerae were clear. Ophthalmoscopic examination revealed normal retinal vessels and discs. Ears and nose were negative. The tongue was in the mid-line; the vocal cords did not approximate. A

XUM

facial diplegia was obvious. There was no cervical adenitis or thyroid enlargement. With the exception of decreased breath sounds in the left upper lobe the lungs were resonant throughout. The chest walls expanded equally but not fully. Cardiac dullness was within normal limits, rhythm regular, rate 140 per minute at apex, A2 = P2. Blood pressure 124/88 bilaterally. The blood vessels evidenced no pathological processes. The breasts were negative. Abdomen negative. Pelvic examination revealed the uterus to be enlarged to the size of a three months' pregnancy; the adnexae, clear. There was slight oozing of bright red blood from the cervical canal. A neurological examination revealed the following pertinent findings: partial vocal cord paralysis, bilateral facial weakness, respiratory weakness, absent deep tendon reflexes of all extremities and absent vibratory sense in both legs. The skin was clammy. There was no lymphadenopathy. Admission blood studies by the week-end interne revealed the hemoglobin to be 90 per cent, with a WBC of 22,600 and a differential of 84 per cent polymorphonuclears and 16 per cent lymphocytes. Forty-eight hours later the hemoglobin was 77 per cent, WBC 8,200 with 80 per cent polymorphonuclears and 20 per cent lymphocytes. Blood chemistry studies were noncontributory including a blood urea of 24 mg. per 100 cc. and a fasting blood sugar of 74 mg. per 100 cc. Throat cultures for diphtheria and Schick tests were reported negative. Exposure of urine specimen to sunlight did not reveal the presence of porphyrin. The initial impression of a Guillain-Barre syndrome became rather obvious on the basis of increasing spinal fluid proteins of 180, 300 and 440 mg. per 100 cc. and an absence of pleocytosis during a period of ten days. A spinal fluid specimen, on the last occasion, was also sent to the National Institute of Health where it was reported negative in mice for virus isolation. Nausea, epigastric discomfort and joint discomfort persisted, and further questioning revealed the startling admission that the patient had been existing on a diet consisting only of potatoes and occasional eggs for approximately one month prior to admission. She attributed this dietary deficiency to an unsympathetic husband and poor economic circumstances. The polyneuritis and nausea responded dramatically to large dosages of vitamin B complex and there was gradual but definite improvement of the remaining neurological manifestations following antibiotics and physiotherapy. On the 28th hospital day, the day of discharge, vibratory sensibility was still absent in both lower extremities and patient could support herself only in the sitting position.

Her convalescence was uneventful, the ability to walk occuring six weeks following her discharge from the hospital. She was observed in the office at monthly intervals, and by the third month the neurological findings had disappeared and her pregnancy was progressing without incident. An electroencephalogram was essentially negative. Other laboratory findings revealed a hemoglobin of 11.8 grams with a normal white count and differential. The spinal fluid was clear and colorless with a normal Pandy, cell count of one, and a total protein of 37 mgm. per 100 cc. There were no further complications and at term a viable infant was delivered without difficulty.

DISCUSSION

The occurrence of a proven case of Guillain-Barre syndrome complicating pregnancy has not, to our knowledge, been reported in the literature. A general review of the literature and especially in regard to the incidence of this syndrome in pregnancy revealed many cases of polyneuritides, motor weaknessess and other symptoms resembling a Guillain-Barre. However, none of the cases satisfied the diagnostic criteria. The case presented herein is unique because it is a classical example of the Guillain-Barre syndrome complicating pregnancy. BAL therapy was considered in the light of Nielsen's favorable report but the patient's response to the initial conservative measures was so satisfactory that this was not attempted. This patient's dramatic history of dietary deficiency coincidental with the onset of the syndrome posed the possibility of a neuronitis of two sources.

The etiology of the Guillain-Barre syndrome is questionable and further work with BAL may confirm Nielsen's conclusion that the syndrome is not an entity etiologically, clinically, pathologically or therapeutically. Until this report a filtrable virus, probably a strict neurotrope, has been favored. Although there are no specific pathologic findings, the changes noted in the nervous system are, in a general way, in keeping with those following filtrable virus infections. The most recent concept favors the syndrome to be basically a manifestation of a toxic interference with enzyme metabolism of ganglion cells and it is therefore conceivable, in view of

XUM

the rarity of this syndrome in gestation, that the physiology of pregnancy in some way protects the physiological processes of the ganglion cells. It seems reasonable to accept the explanation of the albumino-cytologic dissociation on the basis of an obstruction to the perineural circulation of the cerebrospinal fluid as the nerve roots emerge from the cord. This basic pathologic process thus permits absorption of fluid and electrolytes but prevents the absorption of the larger protein molecules.

The syndrome may be precipitated by a host of conditions and the differential diagnosis must include diphtheria, poliomyelitis and prophyria.

SUMMARY

1. The literature has been reviewed with specific emphasis on the occurrence of the Guillain-Barre syndrome in pregnancy.
2. A classical case of the Guillain-Barre syndrome complicating pregnancy has been presented and, to our knowledge, is the first case to be reported in the literature.
3. The etiology, pathology, physiology, differential diagnoses and treatment of the syndrome have been discussed.

2502 Monument Ave. (Dr. H. S. Zfass)

BIBLIOGRAPHY

1. Guillain, G., Barre, J. A., and Strohl, A.: Sur un Syndrome de Radiculoneurite avec Hyperalbuminose Liquide Cephalorachidien sans Reaction Cellularie. Remarque sur les Caracteres et Graphiques des Reflexes Tendineux, Bull. et mem. de. Soc. Med. des Hop. D. Paris, **40**:1462, 1916.
2. Osler, W.: The Principles and Practice of Medicine, 1892, Appleton, New York.
3. Bradford, J. R., Bashford, E. F., and Wilson, J. A.: Acute Infective Polyneuritis, Quart. J. Med., **12**: 88-126, 1918.
4. Casamajor, L.: Acute Ascending Paralysis Among Troops; Pathologic Findings, Arch. Neurol. and Psychiat., **2**:605-620, 1919.
5. Roseman, E., and Aring, C. D.: Infectious Polyneuritis: Infectious Neuronitis, Acute Polyneuritis with Facial Diplegia, Guillain-Barre Syndrome, Landry's Paralysis, etc., Medicine, **20**:463-494, 1941.
6. Gilpin, S. F., Moersch, F. P. and Kernohan, J. W.: Polyneuritis: A Clinical and Pathological Study of a Special Group of Cases Frequently Referred to as Instances of Neuronitis, Arch. Neurol. and Psychiat., **35**:937-963, 1936.
7. Forster, F. M., *et al.*: Polyneuritis with Facial Diplegia, New England J. Med., **225**:51-56, 1941.
8. MacNeal, P. S., and Bland, J. H.: The Guillain-Barre Syndrome: Review of the Literature, Current Implications and Report of Seven Cases, Am. Pract. and Dig. Treat., **1**:337-346, 1950.
9. Nielsen, J. M.: Treatment of Neuronitis with BAL, Bull. Los Angeles Neurol. Soc., **15**:61-71, 1950.
10. Hassin, G. B.: Cerebrospinal Fluid Pathways, J. Neuropath. and Exper. Neurol., **6**:172-177, 1947.
11. Hassin, G. B.: Cerebrospinal Fluid: Its Origin, Nature and Function, J. Neuropath. and Exper. Neurol., **7**:172-182, 1948.
12. Reitman, N., and Rothschild, K.: The Non-Infectious Nature of the Guillain-Barre Syndrome with a Possible Explanation for the Albumino-Cytologic Dissociation. An. Int. Med., **32**:923-934, 1950.
13. Delp, M. H., Sutherland, G. P., and Hashinger, E. H.: Post-Diphtheritic Polyneuritis: A Report of Five Cases with Albumin-Cytologic Dissociation Simulating the Guillain-Barre Syndrome, Ann. Int. Med., **24**:618-628, 1946.
14. McGoogan, L. S.: Severe Polyneuritis Due to Vitamin B Deficiency in Pregnancy, Am. J. Obst. and Gynec., **43**:752-762, 1942.
15. Berkwitz, N. J., and Lufkin, N. H.: Surg., Gynec. & Obst., **54**:743, 1932.
16. Posner, A. C., and Hecht, E. L.: Am. J. Obst. & Gynec., **46**:700, 1943.
17. Agnew, A. M.: Am. J. Obst. & Gynec., **51**:758, 1946.
18. Rowan, H. M., and Mayfield, R. C.: Peripheral Radiculoneuritis Complicating Pregnancy, Am. J. Obst. & Gynec., **61**:1380, 1951.

XUM

VIRGINIA'S HEALTH RATING*

GEORGE COOPER, JR., M.D.,
University of Virginia
Charlottesville, Virginia

An occasional self-evaluation is wholesome. The United States Department of Commerce published the map shown in Figure 1 in the August, 1953, Survey of Current Business. Individual incomes in the southeastern states are still lower than those in other areas, but the incomes in Virginia are the highest in the southeastern group. Also, in this group, the increase in individual incomes in Virginia since 1949 is exceeded only by the increase in South Carolina (Figure 2). Virginia's national rank in per capita income has risen from 39th in 1949 to 35th in 1952.

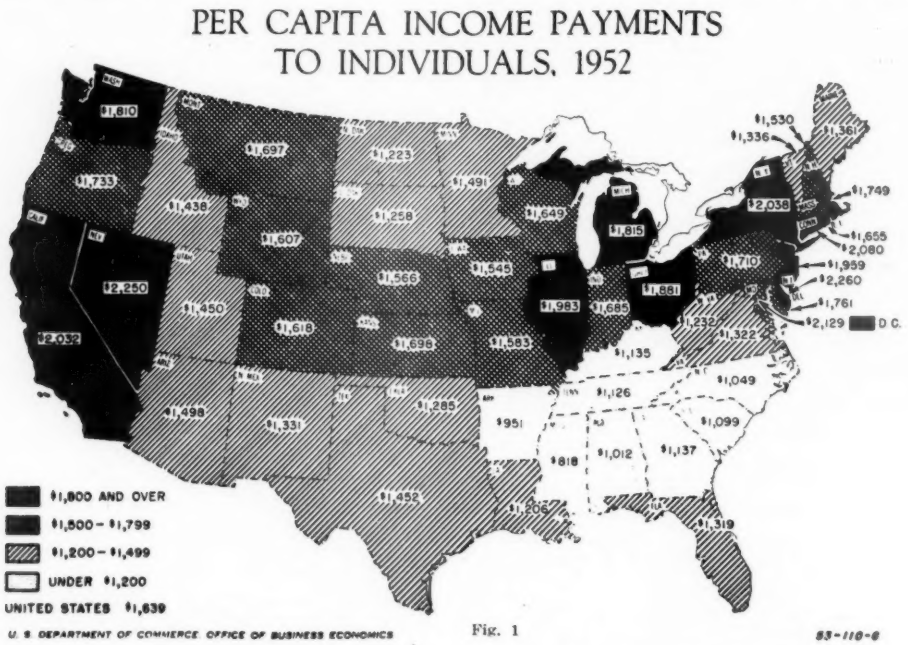


Fig. 1

In a physician, this gratifying news immediately arouses curiosity as to whether the rise in economic standards has been accompanied by a corresponding rise in health standards.

TUBERCULOSIS

In the field of tuberculosis, incidence (Figure 3) and mortality rates (Figure 4) reveal a disappointing disparity. In 1950, Virginia's national rank was forty-second, near the bottom of even the low income southeastern states. Though explanations can be offered, the fact remains that this performance is exceeded by a number of states with lower per capita incomes and with large Negro populations. In the same year, 1950, North Carolina's national rank in tuberculosis mortality was 17th. On the other hand, our northern neighbors, the District of Columbia and Maryland, with much larger per capita incomes but more urban slums, ranked 48th and 45th. Also, Virginia's tuberculosis mortality rate is decreasing more rapidly than is the national rate (Figure 5).

INFANT, MATERNAL, AND CHILDHOOD MORTALITY RATES

A large non-white population with low economic standards is often offered by apologists for a poor health rating in the southeast. Yet, when we check the figures for infant mortality rates by race in the southeastern and bordering states (Figure 6), we see

From the Department of Roentgenology, University of Virginia School of Medicine and Hospital, Charlottesville, Virginia.

*Read before the annual meeting of The Medical Society of Virginia at Roanoke, October 18-21, 1953.

that Virginia cannot fairly offer that excuse. In 1949, Virginia's non-white infant mortality rate was exceeded by only two states, and her white infant

PER CAPITA INCOME PAYMENTS FOR THE SOUTH ATLANTIC AND SOUTH CENTRAL STATES FOR THE YEARS 1949 AND 1952

National Rank 1949	1952	State	Income 1949	1952	Increase
48	47	Alabama	$ 768	$1,012	$244
46	48	Arkansas	794	951	157
3	1	Delaware	1,680	2,260	580
2	3	District of Columbia	1,728	2,129	401
36	36	Florida	1,105	1,319	214
42	42	Georgia	874	1,137	263
44	43	Kentucky	867	1,135	268
40	41	Louisiana	1,008	1,206	198
14	12	Maryland	1,408	1,761	353
49	49	Mississippi	641	818	177
45	46	North Carolina	852	1,049	197
37	37	Oklahoma	1,075	1,285	210
47	45	South Carolina	791	1,099	308
43	44	Tennessee	870	1,126	256
29	29	Texas	1,200	1,452	252
39	35	Virginia	1,046	1,322	276
41	39	West Virginia	1,003	1,232	229

Income data obtained from "Survey of Current Business", August 1953. - U. S. Department of Commerce.

Fig. 2

TUBERCULOSIS (ALL FORMS) MORTALITY RATES (PER 100,000 POPULATION), 1950

National Mortality Rank	State	Rate
17	North Carolina ($949)	18.7
21	Florida ($1,201)	19.2
25	South Carolina ($844)	20.9
26	West Virginia ($1,050)	21.1
30	Oklahoma ($1,077)	22.6
32	Georgia ($967)	23.5
34	Delaware ($1,956)*	23.9
38	Texas ($1,273)	26.0
39	Mississippi ($703)	26.3
40	Louisiana ($1,049)	26.7
41	Alabama ($847)	27.4
42	Virginia ($1,147)	27.6
43	Arkansas ($821)	32.2
44	Tennessee ($967)	33.7
45	Maryland ($1,557)	34.8
46	Kentucky ($913)	36.5
48	District of Columbia ($1,984)**	49.2

*Ranked #2 in national per capita income for 1950.

**Ranked #1 in national per capita income for 1950.

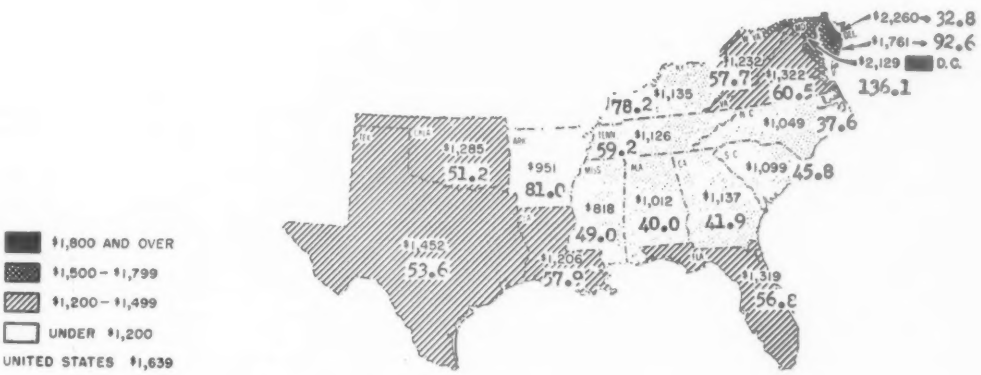
Rates obtained from National Office of Vital Statistics - April 1953.

Income data obtained from "Survey of Current Business", August 1953.

U. S. Department of Commerce.

Fig. 4

NEWLY REPORTED CASES OF TUBERCULOSIS (ALL FORMS)
WITH RATES PER 100,000 POPULATION
1952



Rates obtained from Division of Chronic Disease and Tuberculosis Public Health Service, U.S. Department of Health, Education and Welfare

Income data obtained from "Survey of Current Business" August , 1953.-U.S. Department of Commerce.

Fig. 3

XUM

mortality rate was exceeded by only four. Again we find a number of states with considerably lower per capita income and a large non-white population turning in better records.

But Virginia does not show up poorly in all comparisons. In maternal mortality (Figure 7) and childhood mortality (Figure 8), Virginia ranks above her per capita income rank.

OTHER FIELDS

It is more difficult to find significant data in other fields, but comparison of the mortality rates in the infectious diseases which cause the greatest number of childhood deaths, whooping cough and measles, again puts Virginia in an unfavorable light (Figure 9). In the infectious diseases which cause the greatest number of adult deaths, Virginia's mortality rate is very close to her income rating (Figure 10).

SUMMARY

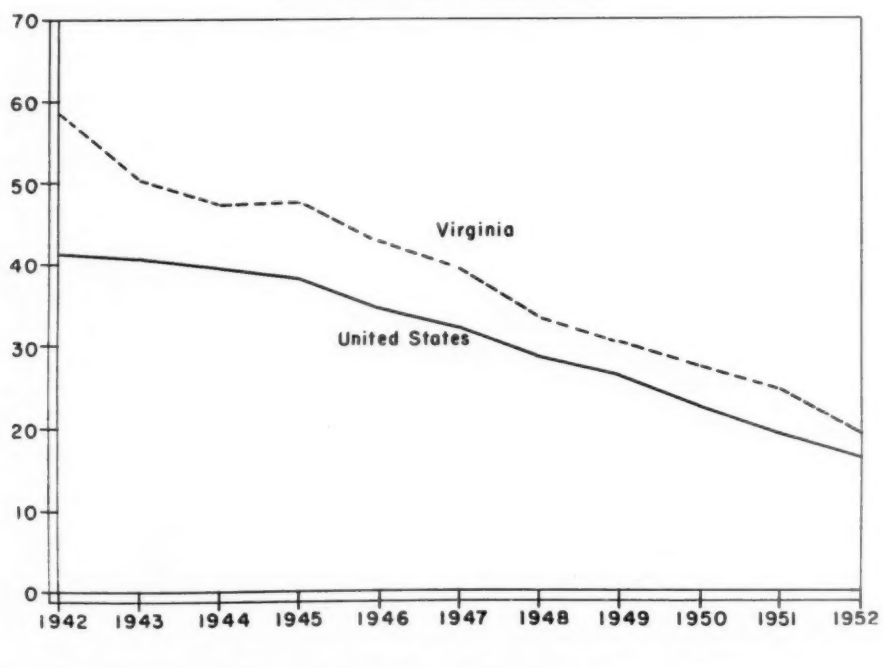
While the above is admittedly an incomplete analysis, and contains reason for both satisfaction and dissatisfaction, it certainly would appear that Virginia's health rating can be improved. That our rank in per capita income payments is higher than our health rating in a number of fields is a cause for concern on the part of not just the staff of our Health Department but every physician. It should motivate us

(1) To cooperate with our Health Department and to back its requests for support by the Legislature,

(2) To give generously to the various volunteer health organizations and to participate in their programs,

(3) To encourage the development of better medical facilities and the location of more physicians in our State, and

(4) To conduct our own practice so that the results of our efforts will improve Virginia's health rating.



Source: State Bureau of Vital Statistics; National Office of Vital Statistics

Fig. 5

INFANT MORTALITY RATE BY RACE, 1949

State	National Mortality Rank	Rate All Races	White	Non-white
Alabama ($768)	42	31.3	28.9	47.3
Arkansas ($794)	34	33.7	31.7	39.8
Delaware ($1,680)	26	30.4	26.7	48.2
District of Columbia ($1,728)	21	29.1	28.1	30.4
Florida ($1,105)	35	33.8	27.6	49.9
Georgia ($874)	33	33.3	28.6	41.0
Kentucky ($867)	46	41.2	39.9	59.0
Louisiana ($1,008)	37	37.2	27.2	52.3
Maryland ($1,408)	27	30.5	26.5	45.0
Mississippi ($641)	43	39.6	31.7	45.8
North Carolina ($852)	39	38.1	30.2	54.2
Oklahoma ($1,075)	29	30.8	28.3	50.8
South Carolina ($791)	41	39.0	29.5	50.2
Tennessee ($870)	45	40.2	37.8	50.7
Texas ($1,200)	47	42.7	41.4	50.8
Virginia ($1,046)	40	38.1	32.7	53.5
West Virginia ($1,003)	44	39.6	39.0	48.9

Rates are deaths under 1 year per 1,000 registered live births.
Rates obtained from "Children's Bureau Statistical Series, No. 9" - Federal Security Agency.
Income data obtained from "Survey of Current Business", August 1953. - U. S. Department of Commerce.

Fig. 6

MATERNAL MORTALITY RATES (PER 10,000 LIVE BIRTHS), 1949

State	National Income Rank	National Mortality Rank	Rate
Delaware	3	7	5.4
District of Columbia	2	12	5.6
Maryland	14	19	6.5
West Virginia	41	33	9.9
Virginia	39	34	10.2
North Carolina	45	35	11.8
Texas	29	36	11.9
Kentucky	44	37	12.2
Louisiana	40	38	12.3
Oklahoma	37	39	12.7
Tennessee	43	40	13.3
Florida	36	44	17.3
South Carolina	47	45	17.4
Arkansas	46	46	17.5
Georgia	42	47	18.2
Alabama	48	48	19.4
Mississippi	49	49	22.4

Rates obtained from "Children's Bureau Statistical Series, No. 9" - Federal Security Agency.
Income data obtained from "Survey of Current Business", August 1953. - U. S. Department of Commerce.

Fig. 7

CHILDHOOD MORTALITY RATES
(PER 100,000 CHILDREN OF AGES 1-14), 1949

State	National Income Rank	National Mortality Rank	Rate
Delaware	3	11	82.9
District of Columbia	2	20	88.3
Maryland	14	23	89.4
Georgia	42	26	92.2
North Carolina	45	28	94.7
Florida	36	29	95.8
Tennessee	43	31	96.9
West Virginia	41	32	98.3
Louisiana	40	34	101.4
Virginia	39	35	104.3
Alabama	48	36	104.8
South Carolina	47	38	108.4
Kentucky	44	40	110.3
Arkansas	46	41	110.7
Oklahoma	37	42	110.9
Mississippi	49	46	117.3
Texas	29	47	121.6

Rates obtained from "Children's Bureau Statistical Series, No. 9" - Federal Security Agency.
Income data obtained from "Survey of Current Business", August 1953. - U. S. Department of Commerce.

Fig. 8

MORTALITY RATES (PER 100,000 POPULATION) FOR THE YEAR 1949

Whooping Cough State	Rate	Measles State	Rate
Delaware ($1,680)	0	Delaware ($1,680)	0
District of Columbia ($1,728)	0	District of Columbia ($1,728)	0
Maryland ($1,408)	0.2	Florida ($1,105)	0.3
Florida ($1,105)	0.2	West Virginia ($1,003)	0.4
Oklahoma ($1,075)	0.3	Louisiana ($1,008)	0.6
Louisiana ($1,008)	0.6	Maryland ($1,408)	0.7
Texas ($1,200)	0.6	South Carolina ($791)	0.8
Georgia ($874)	0.7	Georgia ($874)	0.9
Arkansas ($794)	0.7	Texas ($1,200)	1.2
Alabama ($768)	0.8		
North Carolina ($852)	0.9	Virginia ($1,046)	1.3
Virginia ($1,046)	1.0	Kentucky ($867)	1.3
		Mississippi ($641)	1.3
Tennessee ($870)	1.3	Arkansas ($794)	1.4
South Carolina ($791)	1.5	Oklahoma ($1,075)	1.4
Mississippi ($641)	1.5	Tennessee ($870)	1.5
West Virginia ($1,003)	2.0	Alabama ($768)	1.7
Kentucky ($867)	2.4	North Carolina ($852)	2.3

Rates are from "Vital Statistics-Special Reports, Vol. 36, No. 12, 1949" - National Office of Vital Statistics.
Arrangement by State Bureau of Vital Statistics, State Health Department.

Fig. 9

XUM

MORTALITY RATES (PER 100,000 POPULATION) FOR THE YEAR 1949

State	Influenza and Pneumonia Rate
Maryland ($1,408)	23.9
District of Columbia ($1,728)	26.6
Florida ($1,105)	28.6
Delaware ($1,680)	28.8
Oklahoma ($1,075)	30.5
Texas ($1,200)	31.3
North Carolina ($852)	32.9
Virginia ($1,046)	33.2
Georgia ($874)	36.0
West Virginia ($1,003)	36.9
South Carolina ($791)	38.0
Louisiana ($1,008)	38.5
Alabama ($768)	40.1
Mississippi ($641)	41.4
Tennessee ($870)	41.5
Arkansas ($794)	44.1
Kentucky ($867)	46.3

Rates are from "Vital Statistics-Special Reports, Vol. 36, No. 12, 1949" - National Office of Vital Statistics.

Arrangement by State Bureau of Vital Statistics, State Health Department.

Fig. 10

Cortisone Aids in Treatment of Bell's Palsy.

Speedy recovery from Bell's palsy following the use of cortisone was reported in the January 9 Journal of the American Medical Association. Bell's palsy is a common disorder of unknown origin which causes paralysis of the facial nerves and muscles. It usually takes many months to effect recovery. Little or no progress in its treatment has been reported until recently.

Two cases of immediate, complete recovery from the disorder were reported by Drs. William P. Robison and B. F. Moss, Augusta, Ga. One case was that of a 13-year-old girl who recovered within two weeks after cortisone therapy was instituted. The second case was that of a 5-year-old boy who recovered within three weeks after treatment with cortisone was begun.

"The use of cortisone therapy in these two patients was followed by prompt recovery," the doctors wrote. "No patient suffering from Bell's palsy seen previously in our department over the last 15 years has recovered in less than several months.

"We are encouraged by the results of cortisone therapy in these two patients suffering from the early stages of Bell's palsy. Obviously, we cannot draw sweeping conclusions from observations so limited. We feel justified in the hope that others will test the use of cortisone in this disorder."

The doctors are associated with the department of psychiatry and neurology, Medical College of Georgia.

NOTES ON PULMONARY TUBERCULOSIS*

How Contagious?

Pulmonary tuberculosis is correctly classified as one of the communicable diseases. Because of this and because of the notoriously infectious character of the sputum in a large majority of diagnosed cases since the turn of the century, many persons still regard the disease, without qualification, as *uniformly* and dangerously *contagious*.

A "contagious" disease, strictly speaking, is one which is so readily transmitted from one person to another by direct or in-direct contact, that quarantine long was invoked to prevent spread in epidemic form.

While tuberculosis does not occur in "epidemics" in this country, and is therefore not a "contagious" disease in this sense, enforced isolation has a place in every well-balanced tuberculosis eradication program for the few advanced cases, who refuse to observe precautionary measures in the home and/or in public, and who decline to accept sanatorium care voluntarily.

However, it is felt by the State Health Department that all but a very small residue of those recommended for sanatorium care eventually can be influenced by education or public opinion to accept placement, without resort to quarantine, when beds become available.

Retention to this day and age of the concept that *all* cases of pulmonary tuberculosis are "contagious", literally, results in persons being denied admission to general hospitals, being ejected from hotels, categorically, simply because of having been labelled "tuberculous". Too often no one makes an effort to inquire, sometimes no one expresses the slightest curiosity, as to the *degree* of the patient's communicability, *if any*! Not only is this attitude demoralizing to patients who do not constitute a menace to other people, but it distorts, in an all too fundamental way, the thinking of everyone in any way concerned with the disease. Modern knowledge of tuberculosis cannot be translated into the highest possible type of effective management until it ceases to be hamstrung by out-moded concepts, of which this is one.

As a matter of fact, a majority of cases of pulmonary tuberculosis known today, are regarded by their physicians as "inactive". They require no formal treatment. They lead normal lives. For practical purposes, and to the extent each deserves this rating on the basis of adequate tests, these cases are non-communicable.

Not all cases of *active* pulmonary tuberculosis are communicable in a public health sense, or in *any* ordinary sense.

For example, there is a form which arises from an original or older focus of infection or disease (not necessarily in the lung) which is disseminated by the blood to the lung. For indefinite periods, if not throughout their entire course of healing, these small widely distributed lesions may *never* erode a bronchus and, therefore, may *never* shed Tubercle Bacilli.

While Tubercle Bacilli can be recovered from more than ninety per cent of patients with minimal lesions of the type most commonly observed, where repeated gastric washings are cultured, the remaining ten per cent allegedly are repeatedly negative to these tests and cannot therefore be *very* communicable. Cases undergoing collapse and/or excision therapy are sometimes reduced to a similarly slight degree of communicability soon after cavity closure, or by surgical removal of the area most extensively involved.

From the point of view of those who interpret "activity" in tuberculosis in terms of "treatment requirement" (*in addition* to actual or potential communicability) there would be included many additional patients who take rest periods (systemic rest) and/or reversible collapse therapy for asymptomatic, sub-visible, or "sub-clinical" *active* disease for months or years, who are not communicable in any ordinary public health sense; the simplest of precautions, even in the worst surroundings, should be sufficient to prevent spread of infection.

Actually, repeated, intimate and usually careless contact with tuberculous individuals, in a moderately

*Prepared by the Virginia State Health Department.

XUM

communicable stage, is ordinarily required to contract infection, and disease (requiring treatment) even then does not occur unless the infection has been heavy, the person has little or no resistance to tuberculosis (rare in this country), or his naturally good resistance has been temporarily lowered by over-work, or other illness (at the time of original infection or later).

Tubercle Bacilli are commonly transmitted directly from one person to another by *careless* coughing, spitting or sneezing. Germs may be acquired indirectly, also, by the handling of articles grossly contaminated by tuberculous individuals through careless coughing, spitting and sneezing.

While it is true not all cases of active pulmonary tuberculosis are communicable in a public health sense or in *any* ordinary sense, one can *never* know when any of these cases *might become* communicable, or become *more* communicable (without any change in character or volume of sputum [if present], in x-ray appearance of the lung, or in the general condition of the patient). Since *any* case of active tuberculosis *can* become communicable at *any* time, it must be regarded as communicable *all* the time and appropriate precautions should be taken.*

Periodic tests should be routine, therefore, and *additional* examinations made upon sputum whenever the patient with active disease has an acute upper respiratory infection, during which time *extra* precautions should be taken *regardless.*

Ever to be borne in mind is the fact that the *degree* of communicability of tuberculous individuals with active disease *varies greatly* depending upon whether sputum is present or absent, whether the sputum is positive to smear, concentrate, or culture, or only to gastric lavage culture, and whether these conditions obtain continuously or intermittently. The *degree of danger* which patients present to their associates will vary correspondingly and *in addition* will be dependent upon:

1. The intimacy and duration of exposure.
2. The relative susceptibility (including age) of the person exposed.
3. The thoroughness and consistency with which patient and contact alike observe appropriate precautions.

*"Appropriate" precautions vary widely—corresponding roughly to degree of communicability.

Accordingly, at one extreme would be the far-advanced case with copious sputum laden with Tubercle Bacilli, accompanied by an explosive cough, in a patient who is too sick, not too bright, or is wholly indifferent to the welfare of others to take any precautions, living in a physical environment which makes isolation virtually impossible. At the opposite pole would be the apparently healthy, wholly asymptomatic patient, with a minimal lesion, from those gastric washings Tubercle Bacilli can but rarely be recovered by culture; who is intelligent and considerate, and who follows consistently the relatively simple isolation technique outlined for him by his physician.

SANATORIUM DISCHARGEES

Many patients today are discharged from sanatoria without benefit of many, if any, sputum culture examinations, some with relatively few examinations by concentrate. Pre-discharge gastric lavage cultures are not routine. In other words, not a few patients in most sanatoria are discharged to their homes with *active* tuberculosis that could be *demonstrated* without great difficulty to be communicable *to some degree* —to say nothing of those who sometimes return home with a frankly positive sputum. The latter are not limited to those discharged against medical advice. Moreover almost *all* dischargees have active disease in the sense that additional treatment must be taken upon return home if they would complete their cure. Accordingly, to a greater or lesser extent, *all* dischargees should be considered as actually or potentially communicable for varying periods of time following discharge regardless of tests made while at the sanatorium. *Small* children in particular should never be permitted in *intimate* or *repeated* contact with them if this can possibly be avoided, no matter how well the patient may feel or how willing he may be to take precautions. On the other hand dischargees, not known to have a positive sputum at time of discharge, constitute a much less serious menace to close adult associates and almost none at all to the public at large when relatively simple precautions are observed.

EFFECT OF NEW DRUGS

Without question *degree* of communicability is reduced in a majority of patients who respond favorably to *curative* treatment when specific medicinal aids are included. As is well known, one of the

more spectacular effects noted, following administration of Streptomycin and PAS and/or Isoniazid, to the patient with grossly positive sputum, is an early conversion of the latter to negative in many (but by no means *all*) instances, at least by direct examination (smear). Too often this conversion is more apparent than real (cultures remain positive) and *may* last only as long as drugs are continued.

Sputum cultures sometimes become negative while Tubercle Bacilli still can be found by direct examination. Recently, as a result of application of well-known micro-organism viability tests, certain of these non-culturable Tubercle Bacilli have been shown to retain metabolic function; in most instances, normal culture growth also, could be obtained regularly after 12 to 15 weeks of incubation.

Unfortunately, too, clinical exacerbations occasionally are reported in patients on chemotherapy whose sputum not only is negative to direct examination but who, at least temporarily, no longer shed Tubercle Bacilli capable of growth upon culture of sputum or gastric contents within conventional time limits (6-8 weeks).

When all is said and done, therefore, and certainly as *of now*, it would appear that the basic rule that "*every* case of active tuberculosis (requiring treatment) should be regarded as actually or potentially communicable" is as sound advice today as it has ever been.

* * * * *

For practical purposes and for its own convenience, the State Health Department arbitrarily has grouped "Degrees of Communicability" into four major categories, "*Presumably* non-communicable, Slightly, Moderately, and Heavily communicable." Descriptions of these categories and isolation technique recommended for each, may be obtained by writing the Bureau of Nursing, Virginia State Health Department.

New Books.

We give below names of some of the newer books in the Tompkins-McCaw Library of the Medical College of Virginia, Richmond, which may be had by our readers under usual library rules:

Beck—Obstetrical practice. 5th ed., 1951.
Burch & Winsor—A primer of electrocardiography. 2d ed., 1953.
Graves, ed.—Ulrich's periodicals directory. 7th ed., 1953.
Greene & Blomquist—Flowers of the South native and exotic. 1953.
Hill—Primates: Comparative anatomy & taxonomy. 1953.
Ingalls—Tumors of the orbit. 1953.
Ishihara—Tests for color blindness. 10th ed., 1953.
Kallmann—Heredity in health and mental disorder. 1953.
Lederer & Lederer—Chromatography. 1953.
Lederle—The fifth year of aureomycin. 1952.
Lederle—The nutritional and clinical significance of folic acid. 1950.
Lederle—A review of the clinical uses of aureomycin. 1951.
National Research Council—Atlas of tumor pathology. Stout—Tumors of the stomach. 1953.
New York Academy of Medicine. Schwartzman, ed.—The effect of ACTH and cortisone upon infection and resistance. 1953.
Orr—Operations of general surgery. 2d ed., 1949.
Patten—Human embryology. 2d ed., 1953.
The psychoanalytic study of the child. 1953.
Robins—Ethical pharmaceuticals of merit since 1878. 1953.
Rosenthal—Diabetic care in pictures. 2d ed., 1953.
Roper—People's attitudes concerning mental health. 1950.
Snell & Snell—Colorimetric methods of analysis. Vol. 3. 3d ed., 1953.

XUM

MENTAL HEALTH

JOSEPH E. BARRETT, M.D.
Commissioner, Department Mental Hygiene and Hospitals

The Functions of a Mental Hygiene Clinic In A Small City*

Child Guidance and Mental Hygiene Clinics first made their appearance in the larger cities, where the very immensity of the problems they sought to solve made their need apparent and secured financial support for them. A clinic is usually started to meet a specific need, such as that of the juvenile court, the school system, the adult criminal court, the child caring agencies, etc. Each need was great enough to keep the clinical facilities working at high tension. The result has generally been that the organization has developed a specialized and limited function. Thus, a clinic may deal only with juvenile delinquents, with problem children requiring intensive psychotherapy, with adult neurotics, with criminals, etc. Today it is not unusual to find that a city has several psychological and psychiatric clinics, each of which has a special task to perform and each of which deals with a class of patients who are not otherwise provided for.

But the situation is quite different in a smaller community. The same types of needs are present, but there is seldom sufficient support to make a number of specialized clinics, each dealing with one type of patient, possible. One solution of this difficulty is to limit the work to a single need and to establish one form of clinic. There are definite advantages in such a course. If, for example, a child guidance institute is founded to do intensive psychotherapy, it is able to accomplish worthwhile results, and to avoid scattering its energies over too large a field. Its board and its executive can bring before the community examples of the intensive work and its beneficial results. Interest can be aroused in the limited field and both financial and moral support obtained. The appeal, however, will necessarily be to a limited group. Much that needs to be done to meet other mental hygiene needs remains undone, and the general education of the community fails to progress.

There is, however, another possibility. A more generalized type of clinic is possible. It may attempt to meet the various demands for psychiatric work without limiting itself to a particular field. Both adults and children may be seen, and patients may come from a multitude of sources of referral. A clinic of this type makes a wide appeal within the community because of its value to numerous groups, and thus tends to make mental hygiene known in quarters where it would otherwise have no entrance. Whether the clinic be supported by public funds, by a community chest, by private contributions, or by a combination of these, makes little difference in its work, so long as its executive has freedom from domination by any particular interest.

We may now survey briefly some of the types of work in which such a clinic engages. Since it deals with children, problems arising in school situations will always be prominent. The tendency of the schools to utilize the clinic merely for determining intelligence must be handled in such a way as to stimulate the schools eventually to take over this task for themselves, so that the clinic will be utilized for study and treatment of emotional problems rather than for the determination of mental retardation. Perhaps this can best be accomplished by doing this work only long enough to demonstrate its value. Situations involving social or family problems alone may be handled similarly. As the school administrators are shown by the social workers of the clinic the value of studies of the home-lives of the pupils, they should be encouraged to have their own visiting teachers.

The juvenile court and its probation officers can always make use of psychiatric service. This need is often the starting point for the establishment of clinical facilities, but it should never be allowed to become predominant. The task of the mental hygienist is not only to see patients for the court, but also to educate its officers in our approach to the study and treatment of children. A real benefit is conferred by the clinic only if its influence extends beyond its patients.

Social agencies are today making increasingly large demands for psychological and psychiatric service. Trained social workers now have a back-

*Article prepared by Gilbert J. Rich, M.D., Ph.D., Director, Roanoke Guidance Center, Roanoke, Virginia.

ground of mental hygiene, which enables them to see in their clients the deeper problems that require attention. This applies to various forms of social endeavor. Child-caring agencies desire help with children exhibiting behavior or personality difficulties. Family case working organizations find problems of marital or vocational adjustment, and the like. The public relief agencies, in their effort to rehabilitate their charges, often see remediable mental factors which retard their work. All of these workers turn to the clinic for aid.

A word may be said about the service which can be rendered to medical organizations. Both physicians in practice and medical clinics see numerous problems in their patients which involve mental hygiene. Free referral back and forth between the internist and pediatrician on one hand and the psychiatrist on the other is helpful to both.

The responsibility of a mental hygiene unit to the community can hardly rest with service to these organizations. It should be available to all persons who cannot obtain this aid in other ways. When such is the case, we find parents bringing in children who present difficulties, and adults coming for advice in regard to family and vocational problems, neurotic symptoms, personality problems, and early psychotic manifestations.

Not the least among the tasks of a clinic is the education of the community in mental hygiene. Only in the very smallest city can the psychiatrist hope to see all who are in need of help. Mental hygiene must be thought of as the responsibility of all persons who come in contact with and influence the life of others, be they doctors, social workers, nurses, probation officers, teachers, or clergymen. The clinic acts only as the educational center, from which influences should radiate toward the people who are in daily contact with human beings. In this way, many who never would reach the clinic benefit by its point of view.

The program outlined here may seem an overly ambitious one to be carried on by a single organization. It must be recognized that the trend is extensive rather than intensive. Our point is that the situation in a smaller city demands just such an approach. Financial support for mental hygiene is not always easy to obtain. An intensive and specialized clinic appeals only to a group with one particular interest. In the large urban centers, this group is sufficient to see that the clinic carries on, but in a smaller place it is not. We recognize that intensive work is the ideal, but compromise is preferable to the absence of mental hygiene facilities. Surely, the smaller city cannot afford a number of psychiatric institutions. The choice is then one between a generalized clinic, subserving diverse functions, and one with limited scope, involving the denial of service to patients who do not fall within its field. It would seem that the answer is obvious. A community clinic provides the greatest good to the greatest number. It must offer a generalized service in all branches of mental hygiene. Only when this is provided can a small city be said really to have facilities in mental hygiene.

AMEF Contributions Exceed One Million Dollars.

Contributions to the American Medical Education Foundation during the first 11½ months of 1953 totalled $1,047,000. The present total exceeds donations received during the entire year of 1952 by $141,000. More than 24,500 physicians contributed $847,361 directly to 70 of the nation's 79 approved medical schools.

Plans for the 1954 campaign were discussed at the third annual meeting of AMEF state chairmen January 24 in Chicago.

XUM

PUBLIC HEALTH

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Vaccination Against Poliomyelitis.

Starting in the second week in February a nation-wide study to determine the effectiveness of a vaccine in preventing poliomyelitis will get under way. The program will gradually be expanded to include more than two hundred counties throughout the United States and will involve the mass immunization of around one million school children of the second grade. These children will be vaccinated during a non-epidemic period and will be observed during the subsequent polio season. The basic factor for determining the protective effects of the vaccine will be a comparison of the incidence of paralytic poliomyelitis in the vaccinated group with that of children in the first and third school grades and with their siblings.

The vaccine to be used is that prepared according to the directions of Dr. Jonas E. Salk, Research Professor of Bacteriology at the University of Pittsburgh, who developed the vaccine. It is composed of killed virus of all three polio virus types which have been grown in test tube cultures of monkey kidney tissues. The virus is killed by exposure to formalin and is prepared in a watery solution. Samples from each batch prepared are injected into the brains of 10 monkeys and are submitted to many cultures. This procedure is followed in each of the three laboratories testing the vaccine before it is sent out. One of the tests will be conducted by the pharmaceutical manufacturers producing the vaccine; another will be made by Dr. Salk, and the third by the Biological Standards Division of the National Institutes of Health at Bethesda, a branch of the U. S. Public Health Service which licenses and controls the manufacture of all biological preparations.

The vaccinations must be completed by June 1, 1954, to precede the season of high incidence of poliomyelitis. All records of those vaccinated in Virginia, including those vaccinated in city schools, will be sent to the State Health Commissioner. This will make it possible to have all information concerning the vaccinations filed at a central point and will permit studies of the data pertaining to the state as a whole.

The vaccine evaluation project will be under the overall supervision of Dr. Hart E. VanRiper, Medical Director of the National Foundation for Infantile Paralysis, which is bearing the expenses of the mass vaccinations. In Virginia, as elsewhere, medical and scientific societies, state, city and county health offices, and school authorities have promised their cooperation. The Association of State and Territorial Health Officers has appointed a committee consisting of Dr. R. H. Hutcheson (Tennessee), Dr. John D. Porterfield (Ohio), and Dr. Herman E. Hilleboe (New York), to advise with the National Foundation in planning the project. The selection of areas to receive the mass vaccinations are being made by the National Foundation and the Advisory Committee from information supplied by the states. In furnishing the information the states have followed certain criteria established by the National Foundation.

When selections have been made and the vaccine has been prepared and tested, it will be sent to the State Health Commissioner who will distribute it to the areas which will participate in the field tests. They will be notified in advance; much publicity will have been disseminated and many preparations will have been made before the day of administration.

1. A roster of all first, second and third grade pupils in each school in the area—public, private and parochial—will have to be ready. Only the second grade pupils will be vaccinated, the first and third grade children will be controls.
2. The request forms from the parents of the second grade children will be filed.
3. The records showing the name and address of the school will be on hand. The name, address, age, date, lot number of the vaccine, the name of the physician administering it, and follow-up notes will be recorded on these forms.

The vaccine will be given at the schools by volunteer physicians. The first two doses will be given a week apart and the third dose will follow four

XUM

weeks after the second. The first and second doses do not produce much antigenic response in the patient and if the blood be examined, low immune titer is found. The response after the third dose is high. The duration of the immunity produced is being studied. Attention is called to the fact that pupils who are absent on the days of administration must be dropped from the study. Special inoculations cannot be arranged.

A joint announcement of the areas selected will be made by the State Health Commissioner and the state office of the National Foundation for Infantile Paralysis.

MONTHLY REPORT OF THE BUREAU OF COMMUNICABLE DISEASE CONTROL

	Dec. 1953	Dec. 1952	Jan.-Dec. 1953	Jan.-Dec. 1952
Brucellosis	1	4	57	47
Diphtheria	15	16	95	166
Hepatitis	258	148	2549	938
Measles	123	175	4863	15818
Meningitis (Meningococcic)	13	12	182	199
Poliomyelitis	13	24	734	690
Rocky Mt. spotted fever	1	1	60	79
Scarlet fever	107	98	882	813
Tularemia	15	4	45	47
Typhoid & Paratyphoid	3	0	80	89
Animal Rabies	48	44	432	478

AMA Exhibit in Nation's Capital.

By special invitation of the museum, the American Medical Association will display its exhibit, "The Organs of the Human Body," at the Smithsonian Institution in Washington, D. C., during 1954. After this year, this exhibit will be available for showings in other museums throughout the country.

A new exhibit—"The Physician's Responsibility in Highway Accidents"—calls the doctor's attention to the fact that he should warn patients about the dangers of driving while under the influence of sedatives, antihistamines or anticonvulsive drugs. For professional showings only, this exhibit may be booked through the AMA's Bureau of Exhibits.

Warning Against Topical Use of Antihistamine Drugs.

Topical use of antihistamine drugs should be limited because sensitivity of the skin to such drugs overshadows their possible efficacy, according to the Council on Pharmacy and Chemistry of the American Medical Association.

In the December 19 Journal of the American Medical Association, the council reported a survey of some of the country's leading dermatologists disclosed that the majority of them either have limited the use of these preparations or have abandoned them entirely. The survey also revealed:

1. That numerous cases of dermatitis have appeared coincidentally with the use of such preparations.

2. That although this has not been attributed to all of the antihistamine drugs, they are potentially capable of producing cutaneous sensitivity.

3. That such adverse effects can be considered to outweigh their usefulness at the present time.

"Regarding topical therapy in general, the suggestion was offered that until all important drugs or those commonly used for internal administration are proved to have a low index of sensitization, they should not be employed topically," the report added.

XUM

MEDICO-LEGAL NOTES

Unsuspected Pneumonia in Sudden Death*

The clinico-pathologic syndrome of sudden death and respiratory infections has received much impetus in recent years, particularly with regard to infant deaths. Through the work of many investigators, we now are hesitant to accept the diagnosis of accidental suffocation in the bed or crib without autopsy, because the latter has shown in the vast majority of cases an unsuspected acute respiratory infection or an interstitial pneumonitis. Indeed, our records show a declining number of diagnoses of suffocation and a corresponding increase in diagnoses of interstitial pneumonitis.

In regard to adults, however, the situation would appear to be in reverse. In the Chief Medical Examiner's office each year about a dozen cases are seen, mainly in the winter months, in which the diagnosis of pneumonia is completely unsuspected until autopsy. During the performance of one of these autopsies, a student nurse, when shown a completely consolidated lung replete with fibrinous pleuritis remarked, "but people don't die from that anymore!" One would gain the impression that since the antibiotic age, pneumonia has come to be lightly regarded except in the debilitated, aged, or the severely injured patient. Several investigators have made a study of the pneumonias of the antibiotic era and have submitted evidence that points to a changing nature of the disease itself. They have found a change in the causative agent (the higher type of pneumococcus being now more prevalent), a more atypical course with often lack of response to chemotherapy, a decreased incidence of typical physical signs of consolidation, and often failure of the peripheral blood to show the expected leukocytosis. Indeed with suppression of bacterial growth by antibiotics and probably an increase in unmasked viral infections, this is to be expected.

We do not take issue with these authors because our special domain excludes these patients from our jurisdiction. Indeed, it is because of this special domain that this article is written. The dozen or so cases mentioned previously occur almost without exception in apparently healthy individuals in the prime of life. The one common denominator, again almost without exception, is a history of chronic alcoholism with a recent acute debauch. These victims are apparently well except for their alcoholic excesses and are often found dead in bed or have a sudden onset of acute delirium which may necessitate calling a physician. The physician, when confronted with a delirious and manic patient and given the history of prolonged drinking or just coming "off a spree", makes a diagnosis of delirium tremens and often sedates the patient with paraldehyde. Death comes suddenly or after a short coma and is always unexpected. Because of the lack of medical attention or the short duration of attendance, we have not been able to gather any information as to the blood picture. Some of the victims when seen were febrile, others not. In all these cases, autopsy revealed either lobar pneumonia of several days duration, often involving multiple lobes, or massive confluent bronchopneumonia. Blood alcohol determinations show a low or absent level. Other pathologic changes include varying degrees of fatty metamorphosis of the liver, cerebral edema, and occasionally toxic nephrosis. In none of these cases was the correct diagnosis even suspected.

Such deaths have occurred under both home and institutional care. It is the unfortunate lot of the chronic alcoholic to be passed off as a nuisance or a quarrelsome miscreant who needs nothing more than to sleep it off, with a large dose of paraldehyde to help. He is unceremoniously locked up in jail or passed by in the receiving ward in favor of a more deserving or interesting patient. This attitude plus the "don't worry—a shot of penicilliln will cure it" philosophy about pneumonia is a fatal combination for these people.

Yet, our basic pre-clinical medical teaching in bacteriology and pathology has stressed the close correlation of alcoholism and respiratory infections. Zinsser's Bacteriology states that three conditions must be fulfilled before obtaining a single case of pneumonia:

1. A susceptible individual. 2. A virulent organism. 3. Additional factors. The additional factors include chilling, poor nutrition, fatigue, and alcoholism. Anderson's Pathology cites experimental evidence that the epiglottic reflex is inhibited by alcoholic intoxication, thus permitting the aspiration

*Contributed by George W. Thoma, Jr., M.D., Assistant Chief Medical Examiner, Office of the Chief Medical Examiner, Richmond, Virginia.

of large quantities of mucus, saliva, or even vomitus. These teachings are again met later in clinical medicine. But the lack of opportunity to see the primary pneumonia of a bygone era lulls us into a tendency to classify it with typhoid fever and smallpox as medical curiosities.

A word of caution about the use of paraldehyde in these patients is indicated. Although supposedly the safest sedative for alcoholics, a series of alcohol-paraldehyde synergistic deaths plus experimental work in our office casts grave doubts about this concept.

In summary, a plea is made for an increased awareness of severe pneumonia with toxic psychosis masquerading as post-alcoholic delirium tremens. By a high index of suspicion and a careful physical examination, many of these patients may be saved by adequate treatment.

Surgical Pathology. By LAUREN V. ACKERMAN, M.D., Professor of Surgical Pathology and Pathology, Washington University, School of Medicine; Surgical Pathologist, Barnes Hospital and Affiliated Hospitals, St. Louis; etc. St. Louis, The C. V. Mosby Company. 1953. 836 pages. With 913 Illustrations. Cloth. Price $14.50.

With the establishment of separate departments of Surgical Pathology in large medical centers, the need has arisen for pathologists especially skilled and interested in this field. Lauren Ackerman's text "Surgical Pathology" is designed for both the young pathologist and surgeon, in order that they may well appreciate the diagnostic problems that occur in the operating room and how best they may be handled. The text is divided into 25 chapters, and each, with the exception of the first, treats of a different organ or organ system of the body. The chapters on skin and the central nervous system have been written by Doctor Zola K. Cooper and Doctor David E. Smith respectively. The first chapter is introductory and explains the role of the surgical pathologist and his relation to the surgeon. At the same time it emphasizes the skill in pathology the surgeon must have in order to render good operative judgment. Each chapter treats of the various surgical conditions or biopsied lesions one is apt to meet with either in the operating room or surgical office. The various entities are admirably illustrated both in the gross and microscopically. There is often good enough detail to make diagnoses from the photographs alone which are all in black and white. One sometimes misses discussions about certain "medical" diseases which the surgical pathologist might still have to see. Thus nothing is mentioned of lymph node changes in Whipple's disease and Letterer-Siwe's disease.

The text is clear, concise and easy reading both for the would-be pathologist and surgeon. It can be well-recommended to both the resident in pathology and surgery who must rotate through the laboratory of surgical pathology in the course of their training. In addition, it serves as a useful reference book to the general pathologist where contact with surgical material is only casual.

S.K.

Review of Physiological Chemistry. By HAROLD A. HARPER, Ph.D., Professor of Biochemistry, University of San Francisco, Lecturer in Surgery, University of California School of Medicine; etc. Fourth Edition. Lange Medical Publications, University Medical Publishers, Los Altos, California. 1953. 328 pages. Price $4.00.

This is a condensed but up-to-date presentation of the fundamentals of biochemistry and should prove very useful to the physician or student who wishes to review the subject in outline form or refer to newer aspects of such rapidly advancing fields as metabolism or metabolic reactions.

The new 4th Edition (1953) is definitely an improvement over the earlier (1951) one, and its usefulness has been greatly increased through revision and expansion. The presentation of the Krebs cycle, for example, which in the previous edition was outmoded, has been brought up-to-date, and the importance of coenzyme A (acetylation) in metabolism has been emphasized.

L.D.A.

XUM

THE MEDICAL SOCIETY OF VIRGINIA

Conference on Problems of the Medically Indigent

(The following editorial, which appeared in the *Richmond News Leader,* January 4, 1954, is reproduced in order that the membership might understand the need of constructive leadership with reference to solving the problems of the medically indigent.)

49 FREE-LOADERS AMONG US

Virginia's nonprofit community hospitals, struggling for survival against rising costs, are taking a beating from counties and cities that refuse to pay their fair share of expenses for indigent patients from their areas. Knowing that under modern humane concepts a hospital will not turn down the sick and the injured who can't pay, these delinquent localities shrug off altogether or meet in only a limited degree their obligations in a State-local "share-the-cost" program adopted by the 1945 General Assembly. The State, the hospital, or the hospital's home area have to assume the burden of the shirking localities.

Last week's annual report of the Medical College of Virginia Hospital points up the problem. Out of a $1,000,000 State appropriation for annual maintenance and operation, MCV Hospital spent some $600,000 to care for medically indigent ward patients whose localities ducked their duty under the State-local program. MCV takes additional losses on expenses that are not covered by the State-local program, for research, out-patient, and emergency-room services. Doctors also work without charge on the medically indigent.

The State bears the brunt of much of the debt at MCV and at the University of Virginia Hospital, but Virginia's other nonprofit community hospitals have to resort to private subscriptions, to higher rates, or other means to meet the deficit. For instance, Lynchburg General Hospital, a medical oasis for a wide area, annually has to ask the local city council to pay the deficit for indigent patients from nearby counties and cities. The harassed but big-hearted Lynchburg Council pulls in its own budget a notch to provide for its irresponsible neighbors.

Hospital administrators have made strenuous efforts to correct the inequities through personal talks with local governments. MCV officials recently argued at length with the board of supervisors in a Tidewater county that had refused to pay a nickel towards $3,000 in costs for the treatment of three children severely burned in a fire in that community. The supervisors replied that their county would pay its share when all the other localities in the State had met their obligations, but until that day came the Tidewater community was not going to set itself up as a "shining example."

Well, for that Tidewater county and the other free-loaders around the Commonwealth, a study commission appointed by the 1952 General Assembly has come up with an answer if the 1954 Assembly meeting here this month has the courage to adopt it: The Advisory Legislative Council proposes that the State comptroller hold back from non-earmarked State grants to a locality (such as ABC funds) an amount sufficient to cover the locality's unpaid hospital bills.

Under the present indigent hospital plan, the State sets aside $800,000 annually to match money from the localities on a 50-50 basis. A quota of State funds is credited to each county according to population, and the State funds are released to the hospitals only as the localities provide matching money.

What are the localities putting up for indigent hospitalization? The State-wide average for local expenditures by cities for the fiscal year ended June 30, 1953, was 43 cents per capita; for counties, 16 cents per capita, and for counties and cities, 25½ cents. Forty-three counties and six cities spent less than 15 cents per capita in local money. Among those were Henrico, 6 cents per capita; Chesterfield, 6½ cents, and Hanover, 7½ cents. There may be some unusual factors to account for the slim expenditures by our neighboring counties, but they seem mighty low compared to Richmond's 61 cents per capita. Richmond spent $161,000 in local money although the State matched only $59,000 of this. By comparison, Henrico spent $3,415 in local money, Hanover, $1,695, and Chesterfield, $3,030.

The VALC study commission, headed by State Senator Robert Button, proposes that the State's matching pool be increased to $950,000, and that $250,000 of that amount be reserved for such localities as Richmond that go beyond the State matching funds in their local expenditures. The study group felt the State should not imply that such localities have been prudent up to the extent of the matching

money but are being profligate beyond that in meeting admitted needs.

It is the old task of prodding along the tardy localities and giving the more responsible ones some recognition for their unusual initiative. The Medical Society of Virginia and the Virginia Council on Health and Medical Care are sponsoring a conference here tomorrow to discuss the problem of the medically indigent. Representatives of local governing bodies, doctors, welfare workers, and hospitalization officials will attend, and out of the conference may come a realization that if everyone does his share, no one suffers unduly.

A Conference on the Problems of the Medically Indigent was held at Richmond's Hotel John Marshall on Tuesday, January 5, and attracted a gathering of over 275 representatives of the medical profession, state and county health and welfare groups and interested civic organizations.

Sponsored jointly by The Medical Society of Virginia and the Virginia Council on Health and Medical Care, the Conference brought into the open, for the first time, those problems which have long been of great concern, not only to the medical profession, but to every agency and group interested in adequate medical care.

The morning session, moderated by Dr. H. B. Mulholland, Charlottesville, was opened by Dr. Vincent W. Archer, President of The Medical Society of Virginia, who stressed the need of those present becoming "missionaries in their own locality" to work for better financing of hospitalization for the medically indigent.

Dr. Archer, offering a general definition of the medically indigent as those persons who normally are able to pay their own way but are unable to meet the cost of any prolonged or serious illness, pointed out that physicians have always been willing to provide the best care possible for "the unfortunates who are unable to pay for medical services." He went on to say that in many instances, however, the best care cannot be provided without hospitalization.

According to Dr. Archer, the answer lies in mass public education at the local level in order that the necessary funds for care of the medically indigent might be supplied through increased local tax levy.

The views of Dr. Archer were shared by H. E. Alberti, of Winchester, President of the Virginia Hospital Association, who stated that "the real solution lies in our ability to educate, at the local level, county and city governments in their responsibility to take care of their own."

Mr. Alberti was of the opinion that present state appropriations, made to match local funds in financing medical care of the indigent, are generally adequate. However, he pointed out that many counties and cities are not matching the state aid, and are partly responsible for the tremendous burden imposed on the hospitals.

John L. Bruner, Chief, Bureau of Hospitalization and Homes for Adults, State Department of Welfare and Institutions, described the current State-Local Hospitalization Program, which was established in 1946 to "encourage and assist the counties and cities to provide hospital care and treatment for indigent and medically indigent residents of Virginia."

Mr. Bruner stated that in seven years of operation, approximately 55,000 patients have been hospitalized in general hospitals at a cost of $6,500,000 paid from state and local funds on a 50-50 matching basis. He went on to say that "physicians and surgeons have provided the necessary medical and surgical services to these thousands of patients without charge—as members of the service staffs of the participating hospitals."

Not all counties and cities take full advantage of the program, however. For example, of 126 counties and cities, only 30 either matched or exceeded state funds (13 cities and 17 counties). It was explained that the state appropriation provides a per capita allotment of about 25¢ which if matched by local funds would permit a 50¢ per capita.

An interesting suggestion came from William B. Speck, Field Secretary, League of Virginia Counties, who urged that public health clinics be used more and more to screen patients needing treatment in order that medical problems might be discovered and corrected early.

Programs now in operation for the care of the medically indigent were described by Dr. Kinloch Nelson, director of the home care program operated by the City of Richmond and the Medical College of Virginia, and Dr. Harold W. Miller, Woodstock.

Dr. Nelson fixed the cost of service under the Richmond program at between $12 and $13 per patient each year, and credited the program's success

XUM

to the joint efforts of the health department, college and welfare agencies. He emphasized the necessity of arousing in the poor a "dissatisfaction with their lot" and encouraging them to make every effort to improve their positions.

Dr. Miller expressed the thought that any method of assistance agreed upon "should be one that will least lessen individual initiative, independence and private enterprise."

The story of the Patrick Henry Hospital was told by Mr. W. H. Story, President of the Hospital Board. The hospital is unique in that twelve counties and five cities participate from the welfare standpoint and is literally "a dream come true."

The hope was expressed that other counties will take heart from what has been accomplished at Patrick Henry and begin work on similar projects of their own.

Dr. H. B. Mulholland, Charlottesville, Chairman of the A.M.A. Committee on the Medically Indigent, delved into the problem from the national point of view and reported that the only really successful plans have been those in which the local communities were stimulated through such media as this particular conference.

According to Dr. Mulholland, plans for indigent care should be given careful medical supervision by physicians and organized to provide, wherever possible, teaching material for teaching institutions.

One of the highlights of the morning session was a word of welcome from Governor Battle, who expressed the hope that from the conference would come some solution to the problems being considered.

A vote of optimism was inserted when Dr. Walter B. Martin, President-Elect of the American Medical Association, told a luncheon gathering that more than 91,000,000 persons throughout the country are now covered by some form of prepayment plan to meet the cost of illness, and that at the current rate of growth in coverage, participation theoretically would be extended to all in just a few years. He reminded, however, that there always will be those who are unable to meet the cost of insurance.

Dr. Martin stated that responsibility for medical care falls on the individual first, and then on the community and state in that order. He warned against allowing the Federal Government to assume the responsibility, since medical care would become more costly and the door leading to the socialization of medicine would be opened to political pressures.

The afternoon portion of the program featured a question and answer session with all questions directed to a special panel of 15 members.

In answer to a question concerning cost of medical care, it was brought out that 125 private hospitals in Virginia are entirely dependent upon fees from patients for their operations. They are without funds from endowments, donations, etc.

It was suggested that a follow-up Conference be staged next year with a committee appointed to make sure each local community is represented. It was again emphasized that the education process must be conducted on the local level.

XUM

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF VIRGINIA

President—MRS. K. W. HOWARD, Portsmouth
President-Elect—MRS. MAYNARD EMLAW, Richmond
Recording Secretary—MRS. LEE S. LIGGAN, Irvington
Corresponding Secretary—
MRS. LEMUEL E. MAYO, Portsmouth
Treasurer—MRS. WILLIAM C. BARR, Richmond
Publication Chairman—MRS. WM. S. GRIZZARD, Petersburg

RICHMOND

The Woman's Auxiliary to the Richmond Academy of Medicine held its annual Public Relations Luncheon, at the Academy Building 1200 E. Clay Street on Friday November 20th.

Presidents of Women's Organizations in the city were invited to be guests at this meeting.

Dr. William T. Sanger, president of the Medical College of Virginia, spoke on The Four Fold Program at the Medical College.

The meeting was planned by Mrs. Randolph Hoge and Mrs. William Harris.

The Romance and Research Committee under the direction of Mrs. George G. Ritchie, Jr., had on display the results of a survey made to determine what voluntary health agencies are available to the public of Richmond, how they operate, how they serve the public and how the Richmond physicians co-operate with these agencies.

Also on display were rare books from the Miller Library at the Academy. Among the books were an anatomy text dating from the fifteenth century. It was written by Paracelsus, a Swiss doctor and chemist at about the same time that Columbus set out to discover the new world. Some of the pages still bear the marks of hot irons used by aroused critics to effectually censor various sections.

Also, many interesting, old instruments and a carved ivory figurine made in sections and used for teaching anatomy to midwives in the first quarter of the seventeenth century, were displayed.

The annual Christmas Party of the Auxiliary to the Richmond Academy of Medicine was held at the home of Mrs. Donald S. Daniel, 203 Ampthill Road on Friday, December 11.

Mrs. Maynard R. Emlaw, chairman of the party, introduced Mrs. Courtney S. Welton who read an interesting Christmas story.

Mrs. Wyndham B. Blanton, Jr., and Mrs. Aubrey A. Houser, Jr., were in charge of refreshments.

Toys were brought by each member which were distributed to children's hospitals in Richmond at Christmas by Mrs. Ralph S. Faris.

New appointments of committee chairmen for the Richmond Auxiliary:

DINNER DANCE HONORING DOCTOR'S DAY—Mrs. Benjamin Carter.

TODAY'S HEALTH—Mrs. Austin I. Dodson, Jr.

ALMA GRINELS (MRS. J. R.)

PETERSBURG

The Petersburg Medical Auxiliary held their regular monthly meeting on December 1, 1953 in the Conference room of the Petersburg General Hospital. The Program chairman, Mrs. Milton Ende, had arranged to have a program on civil defense. Two of the city firemen came and showed a film entitled "Operation Doorstep". This film was taken during the actual explosion of a test atomic bomb which had been set up to illustrate the actual damage done to homes and people within an eight mile radius. It was an excellent film and we would recommend it to any group that might be planning a civil defense program.

The Auxiliary voted to donate $416.00 to the Petersburg School of Nursing. This sum was made last year at a dinner dance given by the Auxiliary for the benefit of the Nursing School. As our pledge for 1952 was only $500.00 and $916.00 was made, the $416.00 was held in the bank until this year.

MRS. JOSEPH WHITTLE,
Publicity Chairman.

The Bricker Amendment.

At the Chicago Conference in November, your President, Mrs. K. W. Howard, represented Virginia on the Legislative panel, and gave the following three minute paper, which is very pertinent to the action now being considered in Washington.

We are asked by the American Medical Association to support Senate Joint Resolution #1, known as the Bricker Amendment, an amendment to the Constitution of the United States, proposed by Ohio Senator John William Bricker, and cosponsored by forty-four other Republican and nineteen Democratic Senators. The A. M. A. urges the active support of the entire medical profession toward the adoption of this measure by the Congress at an early date.

The Amendment relates to that article of the

XUM

Constitution which makes it possible for treaties to supersede conflicting state and federal laws, without legislation, by consent of two-thirds of those present in the Senate. The House is not consulted. As interpreted by the Supreme Court, treaty provisions or necessary and proper laws based on treaties can regulate matters the Constitution otherwise reserves to the states and the people, and take precedence over every federal, state and municipal law.

The Bricker Amendment would forbid the ratification of any treaty which violates the Constitution, and would give protection against the possibility of turning our country into a socialistic state by the ratification of "conventions" coming from ILO or the United Nations or any other foreign or international source. Right there is the danger.

The International Labor Organization, known as ILO, functioned as part of the League of Nations. Now it is an arm of the UN. The U.S. government joined in 1934 with the stipulation that we would not be bound by any Convention proceedings. In 1948 The United States approved a revised Constitution of ILO which makes ILO "Conventions", when ratified by our Senate, binding on us too. Americans should understand that ILO is now completely in the hands of a socialistic-government-labor coalition. Their purpose seems to be to get their proposals on the statute books of member nations. The procedure is to bring up Utopian "Resolutions" or "Recommendations", which are not binding on anyone, and to persuade delegates to approve them for the sake of harmony. Then the majority socialistic group will remake the "Recommendation" in-to a "Convention", which is binding, and bring it up again. Delegates are embarrassed to reverse their previous vote. In this way "Conventions" passed in ILO conferences become international treaties, binding upon all participating nations whose governments ratify such treaties.

One such "Convention" which was approved at Geneva last June, called "Minimum Standards of Social Security" would pay people for "any condition requiring medical care, of preventive or curative nature, including pregnancy, any morbid condition, loss of earnings due to sickness, injury, unemployment, old age or invalidism, and death benefits." This would obviously bankrupt any government. The medical provisions of this are a complete "blueprint" for Socialized medicine.

The situation calls for immediate action. The issue applies to all activities of the United Nations. Socialism can come in through the back door of law-making by treaty. The danger must be brought home to all thoughtful Americans, and their help enlisted to force action on the Bricker Amendment.

EDITORIAL

Doctor J. Bolling Jones of Petersburg

An Appreciation

WHEN a man has practiced medicine for over fifty years he has known many doctors intimately. They were wonderful people, each one making a specific contribution to the profession. Knowing them so well, in moments of meditation, I have often asked myself—"If I had my life to live over again which of these men would be nearest to the type of the man I would like to be?"

There was a surgeon whose hands flashed with unbelievable speed and dexterity but who was interested far more in Surgery than the man before him. Not him.

There was another so deeply versed in medical literature as to be a reference library within himself, but who thought the realms of sport were childish things. Not him.

There was one, so capable and scientific but to whom, God and his church was a creed for old women only. Not him.

Taking all things into consideration, if I could be like any man of medicine I have ever known I would choose to be cast in the pattern of J. Bolling Jones.

It is unlikely we will ever see such a man again and this is largely due to the modern system of case recordings. A good case history in the files is also a good way to blot out memory. What the brain has no necessity to remember it automatically forgets. Conversely the not keeping of records seems to stimulate memory. Either because of this or some natural gift, the memory of Dr. Jones was so prodigious as to justify the adjective, encyclopedic.

He would start to talking about a case. The man lived down in Prince George County, was named Blank, married the daughter of this or that family. Had five children, two boys and three girls. Then followed a close description of the malady; the results of therapy with no details lacking. These things were told as though they were the happenings of last week. It was startling to know that it all happened 30 to 40 years ago.

Of course, it is a tragedy that all this memory died with him. Had it been recorded it would be for the benefit of others. But, none the less it was there, and being there helped to mold the character of the man I knew. There was something dramatic about it at times. When Dr. Lowndes Peple reported the first case in Virginia of the black widow spider bite, before The Medical Society of Virginia in 1929, only one man discussed it, the rest had never heard of it. Dr. Jones reported a case in a Negro farmer and was familiar with the syndrome that is now common knowledge.

I think he was aware his memory was exceptional. He sent me a case of Bromoderma where he had missed the diagnosis. Later on in my office when I had to keep him waiting, he said "Give me a text book. I want to read up on that Bromide business." When I came back into the room he said "You are absolutely right. You have caught me once but," with a twinkle, "remember you are not going to catch me twice in the same place."

Now be it remembered besides a large medical practice this man had delivered hordes of babies and was a surgeon in his own right. Dr. Everett Evans tells me that, when doing research on surgical shock, he was asked to address the Petersburg Faculty on this subject. A man whom he did not know arose and discussed the subject with such insight and profound logic that Evans in amazement said to a neighbor "Who on earth is this man." The reply was J. Bolling Jones.

XUM

Physically, his outstanding trait was his lack of fatigue. I never heard him say he was tired. Dr. Gill, the Episcopal Minister, told me of sitting and talking with Dr. Bolling late at night. Finally, he felt his eyes closing in spite of himself and he said "Dr. Bolling, I wouldn't offend you for my right hand but I am so sleepy, I've got to go to bed." Dr. Bolling looked at his watch. "My God, it's one o'clock and I'm going Fox Hunting at three."

This is fantastic but the answer was his ability to sleep in any position and in any environment. In the horse and buggy days he would wrap the reins around the whip-stock, go to sleep, and let the horse find his way home. He could sleep on horseback or in a swaying bumping car. "Nature's sweet restorer" was to him a light to turn off or on at will. Where others were tense, he slept.

His language was homey and there was more than a trace in it of Mark Twain or Will Rodgers.

"I was called down to meet the Seaboard train. When I went inside there sat an obese woman surrounded with bloody towels and a constant drip of blood from the nose. Now Tom—believe it or not, when I took her blood pressure after that terriffic hemmorhage, it read 206.

"I said to her, Madam, there are three things I can do: 1st—I can take you off of here and put you in the hospital. 2nd—I can have your berth made down and give you a sedative. But if I were you I wouldn't do either of these things. I would sit up in that seat and drip. I would drip all the way to Miami and everytime I dripped, I'd praise God."

He once presented a paper to the Richmond Academy of Medicine on a case of Hermaphroditism. It was the history of an adolescent, raised as a woman and surgically found to be a man. I was asked to open the discussion and I wondered at first what I could say, for surely here was only an anomaly with no possible therapy. But as the story unfolded there was revealed a practitioner of the Art of Healing, throwing the mantle of his protection around this poor mis-fit. Where others would have said "There is nothing to do", he saved sanity, saved a soul, and made a man to do a man's work in the world. It was not scientific. It was pure artistry.

I wish someone would design a medal with his likeness upon it, for I wish to contribute the motto. It would be a paraphrase of that on the seal of the City of Richmond. VIA MEDICA—AD ASTRA—Through Medicine to the Stars.

THOMAS W. MURRELL, M.D.

XUM

XUM

Medical Society of Virginia Cancer Committee

Chairman, George Cooper, Jr., M. D.

Medical School Building, University, Va.

Reprints of this and preceding Bulletins may be obtained from this office

February 1, 1954

Case Reports

A 45 year old woman passed both bright and dark blood by bowel intermittently for 18 months. During this time, she was treated by two doctors for hemorrhoids. One of the doctors accepted the hemorrhoids as the cause of bleeding after visual inspection of the anus, the other also did a digital rectal examination.

At the end of the 18 months, she experienced violent low abdominal pain and fresh rectal bleeding. The abdomen was explored and the sigmoid was found intussuscepted into the rectum. The intussusception was reduced. After the operation, the pain was relieved but the rectal bleeding continued.

She was then referred to another hospital where, on digital rectal, only old hemorrhoidal tags were found. At proctoscopy, fresh blood was seen coming down from above the limit of proctoscopic visualization. X-ray examination by means of a barium enema demonstrated a polypoid tumor in the upper sigmoid. That portion of the colon, including a wide margin on either side of the tumor, was resected together with its mesocolon which contained several enlarged nodes. There was no macroscopic evidence of tumor beyond the regional nodes. The pathological study of the tumor showed a benign polyp which had undergone malignant degeneration. There were metastases in a few of the lymph nodes.

Comment: 1. Even though actively bleeding hemorrhoids are found, they should not be accepted as the sole cause of rectal hemorrhage. A full investigation should still be conducted to rule out the presence of additional bleeding points higher up.

2. The investigation should include a digital rectal examination (about 40 per cent of large bowel tumors occur in reach of the examining finger), proctoscopic examination (another 35 per cent, approximately, occur within the range of proctoscopic vision), and an x-ray study of the colon with contrast media (about 25 per cent of large bowel tumors are beyond proctoscopic visualization). The discovery of a possible source of bleeding by any one of these means is no reason to omit either of the other two procedures. Multiple malignancies of the colon are not rare and multiple polyps are found more frequently than single ones.

3. Intussusception in the large bowel of an adult, except at the ileocecal junction, should be presumed to be due to the presence of a tumor and is indication for resection.

4. In the above case, correct initial handling would probably have resulted in discovery of the polyp before malignant degeneration had taken place. Surgical intervention at that point would have afforded a vastly improved prognosis. Correct surgical handling at the first abdominal exploration would have avoided the necessity for the second.

XUM

XUM

SOCIETIES

State Board of Medical Examiners.

Dr. K. D. Graves, Secretary-Treasurer of the Virginia Board of Medical Examiners, reports that the following were licensed by the Board at its meeting and the examinations December 2nd to 5th, inclusive, 1953:

In Medicine and Surgery by endorsement:

Dr. Roger Carroll Baker, Jr., Vienna
Dr. John Callin Bates, Grundy
Dr. Robert Verlin Beeler, Jr., Charlottesville
Dr. David Fowler Bell, Jr., Staunton
Dr. Gordon Gilbert Birdsong, Franklin
Dr. James Currie Blair, Stonega
Dr. William Francis Blair, Norfolk
Dr. Edward Franklin Blasser, Fairfax
Dr. James Harold Bowles, Sandy Hook
Dr. Henry Griffin Bullwinkel, Alexandria
Dr. Thomas Walter Caldroney, Newport News
Dr. James W. S. Calvert, Bluefield, W. Va.
Dr. Charles David Cawood, Middlesboro, Ky.
Dr. Robert Raymond Cooper, Jr., Norfolk
Dr. George C. Cypress, Jr., Hampton
Dr. Edmund F. Daley, Washington, D. C.
Dr. Edward Colson Day, Arlington
Dr. Adrian Joseph Delaney, Chevy Chase, Md.
Dr. James Joseph Dunne, Richmond
Dr. Dorothy Armstrong Elias, Washington, D. C.
Dr. Amzi Jefferson Ellington, Jr., Richmond
Dr. James Hamilton Fagan, Lexington
Dr. Daniel Wyatt Ferguson, Radford
Dr. Richard Daniel Finucane, Arlington
Dr. David Henry Fuller, Jr., Williamsburg
Dr. Robert Maxwell, Spotsylvania Court House
Dr. Joseph Alan Hertell, Falls Church
Dr. Charles King Holmes, Washington, D. C.
Dr. Lawrence Boykin Hudson, Martinsville
Dr. Harold Joseph Jacobs, Norfolk
Dr. Broor Alvin Johnson, Portsmouth
Dr. Lee Norman Kastner, Portsmouth
Dr. Carmen Jiminez Kaye, Glen Allen
Dr. Horace Eskew Kerr, Petersburg
Dr. Roy Johnson King, Waynesboro
Dr. Robert A. W. Latimer, Manassas
Dr. Thomas Miles Leonard, Washington, D. C.
Dr. Louis August Leone, Richmond
Dr. Leon A. Martel, Jr., Falls Church
Dr. Franklin Martin, Jr., Charlottesville
Dr. Charles Webster Massey, Richmond
Dr. Robert Marcus May, Washington, D. C.
Dr. Harold Francis McCann, Arlington
Dr. Harry Johnson Miller, Glasgow
Dr. Maurice Myles Miller, Norfolk
Dr. Charles E. Moran, Dahlgren
Dr. Douglas Cockerville Morris, Miami, Fla.
Dr. James William Murphy, Newport News
Dr. Henry Darwin Murray, Waynesboro
Dr. Phyllis Jean Moffett, Williamsburg
Dr. John Richard O'Brien, Bethesda, Md.
Dr. Robert Joseph O'Donnell, Arlington
Dr. Boyd Nelson Park, Alexandria
Dr. Percy Paul Pharr, Gap Mills, W. Va.
Dr. Seigul James Polk, Lebanon
Dr. Daniel Wells Pratt, Charlottesville
Dr. Freeman Leigh Rawson, Jr., Lynch, Ky.
Dr. George H. M. Rector, Norfolk
Dr. William E. Reefe, Alexandria
Dr. Frederick William Rook, Alexandria
Dr. James Hal Smith, Christiansburg
Dr. James Howard Smith, Petersburg
Dr. Rollin Fred Snide, Waynesboro
Dr. Henry H. D. Sterrett, Jr., Arlington
Dr. Robert Haldane Syme, Jr., Washington, D. C.
Dr. Harry Glenn Thompson, Alexandria
Dr. Yonne Dorothy Varese, Newbern
Dr. John H. Vaughan, Richmond
Dr. Seymour Paul Weissman, Williamsburg
Dr. Mary C. G. Whitmore, Charlottesville

By Examination:

Dr. Emile H. Bisharat, Washington, D. C.
Dr. Hoyle Edgar Bowman, Nashville, Tenn.
Dr. Dudley Earl Brown, Jr., Portsmouth
Dr. Brian C. Campden-Main, Williamsburg
Dr. Chai Chang Choi, Richmond
Dr. Thomas Christie, Suffolk
Dr. Thomas James Conaty, Huntington, W. Va.
Dr. Robert Edward DeBord, Richmond
Dr. Michael Finegan, Lynchburg
Dr. Joseph Erskin Gardner, Denver, Colorado
Dr. Eugene Wilder Heatwole, Richmond
Dr. Tibor Heda, Richmond
Dr. Robert Ritchie Hogg, Louisa
Dr. Robert Oscar Hudgens, Richmond
Dr. Thorjorn Johan Lassen, Williamsburg
Dr. Murdo Macaulay Mackay, Clifton Forge
Dr. Robert E. McConnell, Jr., Richmond
Dr. William Barton Van Slyke, Charlottesville
Dr. Robert Warner Wood, Jr., New York, N. Y.

Two Chiropractors were also licensed.

Medical Society of Northern Virginia.

The last meeting of the Society was on December 15. In addition to a short business session, case reports were given by Dr. H. P. Maccubbin of Winchester on Hepatic Coma; Dr. M. J. W. White of Luray on Two Unusual Cases of Intestinal Obstruction; and by Dr. William C. Humphries of Woodstock on Congenital Anomalies of the Hands and Feet. Following luncheon, Dr. Edward P. Cawley,

XUM

Professor of Dermatology at the University of Virginia, by invitation addressed the Society on The Diagnosis and Treatment of the Pre-Cancerous Dermatoses.

Officers elected for 1954 are: President, Dr. E. L. Grubbs, Front Royal; vice-president, Dr. E. L. Hopewell, Strasburg; and secretary-treasurer, Dr. Wm. C. Humphries (re-elected), Woodstock.

The next meeting will be in Winchester, on April 13.

The Williamsburg-James City County Medical Society,

At its meeting on December 9, elected the following officers for the ensuing year: President, Dr. Hugh G. Stokes, Williamsburg; vice-president, Dr. E. B. Kilby, Toano; and secretary-treasurer, Dr. Carlton J. Casey, Williamsburg. They assumed office at that meeting.

The following meeting was held on January 13 at the Williamsburg Lodge, at which Dr. G. Watson James, III, Assistant Professor of Medicine at the Medical College of Virginia, was the guest speaker. His topic was "Recent Developments in Sickle Cell Anemia".

Arlington County Medical Society.

At the regular meeting of this Society on December 18, at the Washington Golf and Country Club, officers were elected for 1954 as follows: President, Dr. J. R. B. Hutchinson; vice-president, Dr. C. J. Weimer; secretary, Dr. H. Diamant; treasurer, Dr. T. A. McGavin; member-at-large, Dr. Lloyd B. Burk. All are of Arlington.

Warwick-Newport News Medical Society.

The new officers for this Society for 1954 are: President, Dr. William A. Read; vice-president, Dr. W. Ward Anderson; and secretary-treasurer, Dr. F. A. Carmines. All are of Newport News.

Roanoke Academy of Medicine.

At the meeting of the Academy on January 4, Dr. Charles A. Hefner of Roanoke spoke on Needle Biopsy of the Liver and this was discussed by Dr. James Gale. The guest speaker was Dr. Ebbe Curtis Hoff, Medical Director of the Division of Alcoholic Studies and Rehabilitation, Medical College of Virginia Hospital, Richmond. His subject was How the Division of Alcohol Studies and Rehabilitation May Serve the Physician.

Dr. C. D. Nofsinger is president and Dr. Charles B. Bray secretary of the Academy.

NEWS

1954 Annual Meeting.

The 1954 Annual Meeting of The Medical Society of Virginia will be held jointly with that of the Medical Society of the District of Columbia from October 31-November 3 at Washington's Hotel Shoreham.

The meeting, which will be called the First Interstate Scientific Assembly, promises to be an historical occasion for both societies, and it is hoped that every member of The Medical Society of Virginia will plan *now* to attend.

Work on the Assembly has already advanced well beyond the planning stage, and it is anticipated that the scientific program will be one of the best ever presented in the East.

Members of the JOINT COMMITTEE ON LOCAL ARRANGEMENTS are: Dr. Ralph M. Caulk, Washington, D. C., *Chairman*; Dr. Alfred A. J. Den, Washington, D. C., *Vice-Chairman*; Dr. James W. Love, Alexandria, *Co-Chairman*; Dr. John C. Watson, Alexandria, *Vice-Co-Chairman.*

FINANCE: Dr. Robert U. Cooper, Washington, D. C.; Dr. Jerome Baum, Alexandria.

PROGRAM: Dr. Theodore Winship, Washington, D. C.; Dr. Benjamin W. Rawles, Jr., Richmond.

SCIENTIFIC EXHIBITS: Dr. Alfred A. J. Den, Washington, D. C.; Dr. William D. Dolan, Arlington.

MOTION PICTURES: Dr. Joel B. Hoberman, Washington, D. C.; Dr. W. E. Baker, Alexandria.

PUBLICITY: Dr. Josephine E. Renshaw, Washington, D. C.; Dr. Milton R. Stein, Arlington.

SOCIAL EVENTS: Dr. Richard H. Todd, Washington, D. C.; Dr. John C. Watson, Alexandria.

A.M.A. Reception.

The Medical Society of Virginia was host at a reception in honor of Dr. Walter B. Martin, President-Elect of the American Medical Association, on the evening of December 2, 1953, at the Jefferson Hotel in St. Louis.

Held during the Interim Session of the A.M.A.,

the reception was attended by 350 officers of the A.M.A. and their guests.

In addition to its officers and delegates, The Medical Society of Virginia was well represented by a goodly number of physicians attending the meeting. Although it was impossible to know beforehand just who would journey to St. Louis, every Virginia physician registered was called and extended a personal invitation to attend the reception.

In a letter to Dr. Vincent W. Archer, President of the Society, Dr. Martin said, "I want to express to you and through you as President of The Medical Society of Virginia my own very deep appreciation and that of Mrs. Martin for the very wonderful party in our honor by The Medical Society of Virginia. It was the outstanding event of the St. Louis meeting. I will long treasure the memory of it, particularly as an expression of the regard of my fellow practitioners in Virginia."

The Medical Society of Virginia is proud to have had the opportunity to pay honor to one of its most distinguished members.

The Graduate Lecture Program,

Spring Series, started at the University of Virginia Medical School on February 8 and will last through May 10 as given below:

February 8—Dr. Robert H. Ebert, University of Chicago on The Use of Radiosotypes in the Study of the Chemotherapy of Tuberculosis.

February 15—(The Staige D. Blackford Memorial Lecture)—Dr. Eugene Ferris, Emory University School of Medicine, Atlanta (title to be announced).

February 22—(The Charles S. Venable Lecture)—Dr. Warren H. Cole, University of Illinois College of Medicine, Problems in First Aid.

March 1—Dr. William B. Castle, Harvard University, Some Immunologic Aspects of Disorders of the Blood.

March 8—Dr. Roy S. Grinker, Michael Reese Hospital, Chicago, Some Newer Aspects of Psychosomatic Medicine.

March 15—Dr. Harry Eagle, Bethesda, Maryland, Studies of the Mode of Action of Penicillin.

March 22—Dr. George W. Wright, Cleveland, Ohio, Measurement of Respiratory and Cardio-Circulatory Reserves.

March 29—Dr. Oliver H. Lowry, Washington University School of Medicine, Washington (title to be announced).

April 12 (Phi Lambda Kappa Lectureship)—Dr. Charles K. Friedberg, Columbia University College of Physicians and Surgeons, New York, Drugs in the Treatment of Heart Disease.

May 10 (Phi Beta Pi Cancer Teaching Lecture)—Dr. Paul Aebersold, Oak Ridge, Tennessee, Radioactive Isotopes: Cancer Research, Diagnosis and Therapy.

It is expected that two more lectures will be added to this series.

Although these lectures have been well attended by local physicians and the hospital staff, the authorities emphasize the fact that *all Virginia physicians are welcome and all physicians are invited without a fee.*

News of Health Officers.

Dr. James H. Fagan of Hancock, New York assumed his duties as Director of the Botetourt-Buena Vista-Lexington-Rockbridge Health District recently with headquarters at Lexington.

Dr. Esther G. Fagan of Hancock, New York reported for duty as Director of the Alleghany-Bath-Covington-Highland Health District on January 1, following three months' orientation. Headquarters are at Covington.

Dr. William C. Fritz accepted a position on November 16, 1953 as Director of the Accomac-Northampton Health District with headquarters at Nassawadox. After completing three months' orientation in the Fredericksburg Health District, he will report for duty on March 1.

Dr. James Fagan and Dr. Esther Fagan were formerly in practice in New York State, and Dr. Fritz was recently in practice at Accomac.

Southwestern Virginia Medical Society.

The Executive Council and Program Committee of this Society met in joint session at the Maple Shade Inn, Pulaski, on December 3rd, to arrange program for the Spring meeting. This is to be held Thursday, April 15, at the Martha Washington Inn, Abingdon and an interesting program is being arranged. The Society hopes for a large attendance.

The Tri-State Medical Association of the Carolinas and Virginia

Is to be held in Charleston, South Carolina, February 22 and 23, with headquarters at the Francis Marion Hotel. Dr. G. G. Dixon of Ayden, North Carolina is this year's president. The program includes a symposium, cine clinics, and panel dis-

XUM

cussions. A social hour and banquet will be held on the first evening and a number of exhibits will add to the interest of the meeting.

Staff of Lynchburg General Hospital.

Dr. L. R. O'Brien has been elected chief of staff of the Lynchburg (Va.) General Hospital. Other new officers are Dr. H. Reese Coleman vice-chief of staff; Dr. Macey H. Rosenthal chief of surgery; Dr. George B. Craddock chief of medicine; and Dr. Richard Hawkins secretary.

Annual Spring Congress.

The Gill Memorial Eye, Ear and Throat Hospital, Roanoke, is to hold its twenty-seventh annual Congress in Ophthalmology-Otology-Rhinology-Laryngology-Facio-Maxillary Surgery, Bronchoscopy and Esophagoscopy in that city April 5 to 10. In addition to the resident members, the Faculty includes many prominent specialists from the various states and England. The lectures will be held at the Patrick Henry Hotel, and the operations and clinical demonstrations will be given at the hospital. Each morning between eight and nine, there will be ward rounds and the groups will be small enough to allow detailed study of cases.

The members will be guests of the hospital for luncheon each day at the Hotel and for the banquet at Hotel Roanoke on Wednesday evening. Entertainment will also be provided for the ladies accompanying their husbands.

The American Academy of General Practice

Will hold its sixth annual Scientific Assembly in Cleveland, March 22-25. A number of well known speakers will address the general practitioners at the meetings to be held in the Cleveland Auditorium. There will be more than forty-five scientific exhibits and the lecture program will include subjects of special interest to general practitioners. There will be entertainment for the ladies but highlighting the social events will be the President's reception and dance in the ballroom of Hotel Cleveland on the evening of March 24.

The National Conference on Rural Health

Is to be held in Dallas, Texas, in the Baker Hotel, March 4-6, sponsored by the American Medical Association's Council on Rural Health. Physicians, farm and community groups, and agricultural extension workers from all parts of the country will participate. There will be three general discussion panels.

Dr. F. Elliott Oglesby,

Richmond, announces the removal of his offices to 1016 West Franklin Street, for the general practice of medicine.

Dr. Vincent E. Lascara

Of Newport News, class of '34, Medical College of Virginia, recently attended a course in Clinical Neurology at Jefferson Medical College, Philadelphia, given by Dr. Bernard Alpers.

The International Academy of Proctology

Will hold its sixth annual convention at the Palmer House, Chicago, April 8, 9, 10 and 11th, and all physicians are cordially invited.

An extensive Motion Picture Seminar of Proctologic Surgery (including office techniques) will be held on April 11. Because general practitioners, as well as gastroenterologists and proctologists, face proctologic problems in their daily practice, much of the program has been planned to answer their questions.

There is no fee for attendance as these conventions, as well as all other activities of the Academy, are directed toward the further development of proctology, and all physicians interested in proctology are invited and welcomed to the annual meeting. The program will be available upon request to the Executive Office of the International Academy of Proctology, 43-55 Kissena Boulevard, Flushing, New York.

The Southeastern Surgical Congress

Is to meet in Birmingham, Alabama, March 8-11, with headquarters at the Dinkler-Tutwiler Hotel. The program includes a large number of speakers from all parts of the United States in addition to which there will be a panel discussion each day. The subjects for these are Traumatic Lesions, Esophago-gastrointestinal Hemorrhage, Liver and Gallbladder Pathology, and Surgical Management of Peptic Ulcer. There are eighty doctors from Virginia who belong to this organization of which Dr. Donald S. Daniel of Richmond is Governor from Virginia.

Pan American Congress of Ophthalmology.

Plans are well advanced for the Third Interim Congress of the Pan American Association of Ophthalmology in Sao Paulo, Brazil, June 17-21, 1954, under the presidency of Dr. Moacyr E. Alvaro of Sao Paulo. The scientific sessions will be devoted to presentation of recent advances in treatment of diseases of the eye and in the prevention of blindness.

XUM

Meeting concurrently in Sao Paulo will be the Eighth Brazilian Congress of Ophthalmology and the Nineteenth International Congress of Oto-Neuro-Ophthalmology. Simultaneous translations in English, Spanish and Portuguese will be provided for the sessions of the Interim Congress.

Many social events have been planned, including opportunities to enjoy typical Brazilian experiences, which will be of particular interest because Sao Paulo is celebrating its fourth centennial this year. Physicians who register for the Congress before the end of February 1954 will receive invitations to dinner parties in the homes of Brazilian physicians.

There will be a registration fee of $10, which will cover many of the events, including attendance at the other two congresses. Attendance is not restricted to members of the Association.

The Pan American Association of Ophthalmology was founded in 1939 through the initiative of the late Dr. Harry S. Gradle of Chicago and Dr. Alvaro. With the sponsorship of the American Academy of Ophthalmology and Otolaryngology, a committee consisting of Dr. Gradle, Dr. Alvaro and Dr. Conrad Berens of New York organized the first congress, which was held in Cleveland in 1940. Other congresses were in Montevideo, Uruguay, in 1945, in Havana, Cuba, in 1948, and in Mexico City in 1952. As interest increased, it was decided that interim meetings would be advantageous. The first of these was held in Miami Beach, Florida, in March 1950, and the second took place on a Carribbean cruise in January 1953.

Tri-State Tuberculosis Case Conference,

Composed of specialists from Virginia, North Carolina and West Virginia, is to be held in Roanoke, February 28 to March 2. The meetings will be at Hotel Roanoke, and three physicians from out of the State will act as moderators—Dr. Richard H. Overholt, of Brookline, Mass., Dr. Julius L. Wilson, of the Henry Phipps Institute of Philadelphia, and Dr. John Barnwell, chief of tuberculosis services of the Veterans Administration, Washington. The Virginia host conference committee consists of Dr. E. C. Drash of Charlottesville, Dr. John A. Sims of Arlington, and Dr. William E. Apperson, of the State Health Department, Richmond.

Stonewall Jackson Hospital.

The new 63-bed hospital at Lexington was dedicated January 21, and it is hoped will be ready to receive patients in February. The new hospital cost $1,110,000 and will replace the old Jackson Memorial Hospital which has operated there since 1901. The new hospital will have the latest in medical equipment and other facilities.

Wanted:

Sr. Staff Physician, 220 bed T.B. Hospital, using Modern Therapy including Chest Surgery. Annual stipend $6,552.00 to $7,800.00 with nominal deductions for apartment and maintenance. Based on qualifications, appointee may be started in second or third step. Apply Medical Superintendent, Pine Camp Hospital, Richmond, Virginia. (*Adv.*)

Private Clinic

Near Richmond desires part time services of specialists in general surgery, E.E.N.T., radiology, obstetrics and gynecology, internal medicine, pediatrics, neurology and psychiatry, urology, and dermatology. Full time services of one general practitioner also desired. Give full biography in first letter. Reply to Box 50, care Virginia Medical Monthly, P.O. Box 5085, Richmond, Virginia. (*Adv.*)

OBITUARIES

Dr. Thomas Archer Gibson.

The sudden death of our friend and colleague, Dr. Thomas Archer Gibson, on November 2, 1953, represents an irreparable loss to the Hospital, the profession, and the community as a whole.

Dr. Gibson was a graduate of the University of Mississippi and the University of Pennsylvania Medical School. He served as a resident in Pediatrics under the famous Dr. A. Graham Mitchell, of Cincinnati. On completion of his special training in 1931, he entered into the practice of pediatrics in Winchester, as the first practitioner of his specialty in this section of Virginia. His work in his chosen profession was marked by a high degree of skill, deep human sympathy, wisdom, and the finest ethical standards.

At the onset of World War II, Dr. Gibson promptly volunteered his services, and was appointed a Major in the Medical Corps. He served brilliantly as Executive Officer at Moore General Hospital in Asheville, North Carolina, and was discharged with the rank of Colonel at the end of the war.

XUM

In peace and in war, Dr. Gibson served his community and his country beyond the call of duty. It can well be said of him that the world is a better place for his having lived in it.

The deepest sympathy of the members of this Staff, individually and collectively, is hereby extended to the widow of our deceased President and associate, and his sons and daughter, with whom we mourn his loss.

The foregoing Resolution was unanimously adopted by the Medical Staff, Winchester Memorial Hospital, Winchester, Virginia, on this second day of December, 1953.

Committee

PEMBROKE T. GROVE, M.D.
JAMES A. MILLER, M.D.
JOHN B. MCKEE, M.D.
WILLIAM H. SHAFER, M.D.

Dr. Clifton Ross Titus

Of Bedford, Virginia was born in Loudoun County, Virginia, October 25, 1900 and died in a local hospital, November 21, 1953.

After completing studies in the public schools, Dr. Titus obtained an A.B. Degree from Hampden-Sidney College, and in 1931 was graduated in medicine from the Medical College of Virginia. He practiced his profession several years in Bassett, Virginia. In 1942 he was assigned by the Medical Assignment and Procurement Board as physician to serve the Elks National Home and Bedford County. After the war emergency had passed he decided to remain in Bedford and devote his full time to his private practice.

At the time of his death Dr. Titus was president of the Bedford County Medical Society, co-chairman of the Board of Stewards of Main Street Methodist Church and a member of the Board of Directors of the Hines Memorial Pythian Home. He was a member of the Virginia Academy of General Practice, of which he was a vice-president and treasurer for a number of years, a member of the American Academy of General Practice, The Medical Society of Virginia and the American Medical Association.

In addition to his busy practice he gave liberally of his time and talents to his church and to various community and civic organizations. He was held in high esteem by all who knew him. He recognized his responsibilities to his profession, to his church, and to his community, and he lived up to those responsibilities.

He will be remembered by the members of his profession for his high sense of honor, integrity, ethical standards and devotion to service. The Bedford County Medical Society feels deeply the loss of a true friend and counsellor, and extends genuine sympathy to his family.

We request that this memorial be recorded in the minutes of the Society and that copies of it be sent to his family and to the *Virginia Medical Monthly*.

Committee:

D. H. ROBINSON
W. G. HARDY
W. P. JACKSON

Dr. Charles R. Anderson.

The death of our friend and colleague, Dr. Charles R. Anderson, on October 24, 1953, represents a very keen loss to the medical profession, the Winchester Memorial Hospital, and to the local and adjacent communities.

Dr. Anderson, seventy-six years of age at the time of his death, received his Doctor of Medicine Degree from the University of Maryland School of Medicine in the year 1898, and for forty-four consecutive years was a general practitioner in Winchester and Frederick County. He was a member of the Medical Staff, Winchester Memorial Hospital, during that entire period, and in 1948 he was elected a life member of The Medical Society of Virginia.

In the practice of medicine, in his home, in his church, and throughout the local and adjacent communities he was held in high esteem by all who knew him professionally or personally, and his influence within the communities was far reaching.

In civic life he exhibited rare talent, and served as mayor of the City of Winchester from 1932 to 1946. Moreover, for twenty-five years he served as a member of the Winchester Common Council.

The deepest sympathy of the members of the Medical Staff, individually and collectively, is thus extended to the survivors of our friend and associate, with whom we mourn his loss.

C. L. RILEY, M.D.
E. WILLIS LACY, JR., M.D.

Dr. J. Fulmer Bright,

Physician, military leader, public servant, and mayor of Richmond for sixteen years, died December 29. He was a native of Richmond and always took an active part in everything he thought for its good. For sometime he taught anatomy at the Medical College of Virginia and was made professor emeritus when he retired. He was always interested in the military and retired in 1941 as a brigadier-general. After his service as mayor of the city, he became director of the Office of Price Administration and since 1950 he was medical advisor to the State Industrial Commission. Three sisters survive him.

Dr. Thomas Sanford Cooke,

For many years a well known physician of Portsmouth, died November 15, aged seventy-two years. He was a native of Portsmouth and, after attending local schools, he went to the University of Virginia for the study of medicine and obtained his M. D. degree in 1906. He served his internship at the Norfolk Protestant Hospital, following which he located in Portsmouth and continued practice there until his death. He was an examiner for several life insurance companies. A son and daughter survive him.

XUM